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Annual report on
PROCEEDINGS

OF THE

FORTY-SIXTH ANNUAL CONVENTION

OF THE

ONTARIO EDUCATIONAL
ASSOCIATION

HELD IN

TORONTO

ON THE 2ND, 3RD AND 4TH APRIL, 1907



TORONTO

WILLIAM BRIGGS

1907

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PROCEEDINGS
OF THE
FORTY-SIXTH ANNUAL CONVENTION
OF THE
ONTARIO EDUCATIONAL ASSOCIATION

MINUTES OF THE GENERAL ASSOCIATION.

TUESDAY, APRIL 2nd, 1907.

The Association met in the West Hall of the University of Toronto, at 8 p.m., the President, William Scott, B.A., in the chair.

Rev. A. H. Reynar, LL.D., opened the meeting by reading a portion of Scripture and leading in prayer.

Moved by Mr. A. A. Jordan, seconded by Mr. W. W. Ireland, that the minutes of the Convention for 1906 having been printed and distributed, they be considered as read, and are hereby confirmed. Carried.

Communications were read from :

1. Mrs. Ord Marshall, of London, England, inviting the Ontario Educational Association to send representatives to the next Federal Conference on Education to be held in London, England, May 24th to June 1st, 1907.

The Secretary reported that the Board of Directors of the Ontario Educational Association recommend that Mr. James L. Hughes, of Toronto, be one of the accredited representatives of this Association to the above-named Federal Conference, and that the selection of others be left to the officers of the General Association.

Moved by Mr. J. Dearness, seconded by Mr. S. B. Sinclair, that the recommendation of the Board of Directors, in reference to the appointment of representatives to the Federal Conference on Education in London, England, be adopted. Carried.

2. The Windsor and Walkerville Teachers' Association, having reference to the granting of permits to those who are not legally qualified to teach.

It was agreed that the communication from the Windsor and Walkerville Teachers' Association be referred to a committee to report upon at the Wednesday evening meeting.

3. Mr. E. G. Quesnel, Reeve of Hawkesbury, respecting the course of study in certain schools in Prescott, Ontario County.

Moved by Mr. F. P. Gavin, seconded by Mr. W. J. Hendry, that Mr. E. G. Quesnel be allowed ten minutes at the close of the programme this evening for the purpose of stating the objects for which the County Council of Prescott sent him to this Convention. Carried.

President Scott delivered an address on "Needs of our Schools." (Page 86.)

A. H. U. Colquhoun, B.A., Deputy Minister of Education, addressed the Convention on "Educational Administration." (Page 96.)

S. B. Sinclair, Ph.D., addressed the Convention on "The English Educational System," with lantern illustrations.

Mr. E. G. Quesnel, Reeve of Hawkesbury, addressed the Convention on "Bi-Lingual Schools." (Page 101.)

Moved by Mr. H. I. Strang, seconded by Mr. A. A. Jordan, that the subject of bi-lingual schools be referred to the new Board of Directors. Carried.

Dr. Oldright spoke on "The Second International Congress on School Hygiene."

The meeting adjourned at 11 p.m.

WEDNESDAY, APRIL 3rd, 1907.

The Association met in the West Hall at 8 p.m., President Scott in the chair.

Rev. N. Burwash, LL.D., conducted the devotional exercises.

Communications were read from:

1. The Modern Language Section, as follows: "The Modern Language Section, at its meeting to-day, adopted the following resolution: Resolved, That whereas the literature of Canada, prose and poetry, is sufficient in both quantity and quality for study in our schools, and whereas, the study of the literature of one's country is a most valuable factor in developing National life; therefore the Association places itself on record as favoring (a) a course in Canadian literature in our training schools; (b)

some recognition of Canadian literature in our courses of study leading to teachers' certificates and matriculation examinations; (c) a request to the Ontario Library Association for co-operation in placing Canadian literature in our public libraries and in the larger work of co-operation of public library and school. The Modern Language Section lays this before the General Association with the hope that the Association will discuss the resolution, and adopt it if it meets with approval.

Moved by Mr. L. E. Embree, seconded by Mr. H. I. Strang, that this meeting approves of the resolution adopted by the Modern Language Section of this Association, and sent to this meeting, and hereby endorses the said resolution. Carried.

2. The Hygiene Section, asking that representatives of this Association be appointed to attend the Second International Congress on School Hygiene.

It was moved and seconded, that Drs. Oldright, Hodgetts, Macmurchy, Goodchild and Mr. J. L. Hughes be the accredited representatives of the Ontario Educational Association to the Second International Congress on School Hygiene to be held in London, England, August 5th to 10th, 1907, with the understanding that this will not entail any expense on the Association. Carried.

Mr. S. T. Bastedo, of the Annuity Company of Canada, in reference to the question of superannuation.

This letter was referred to the Superannuation Committee.

The Auditors' Report was submitted by Mr. E. T. Young and adopted.

Chancellor Burwash reported for the Committee on Superannuation, and moved, seconded by Mr. W. S. Ellis, that a Committee on Superannuation be appointed to continue the efforts of the Ontario Educational Association to obtain from the Government a superannuation fund. Carried.

Moved by Mr. C. G. Fraser, seconded by Mr. Beaton, that the present Committee on Superannuation be thanked for their past work, and are hereby requested to continue to act as the Superannuation Committee. This motion was carried after the name of Mr. R. Alexander had been added to the list.

Mr. L. E. Embree spoke on the organization of a Teachers' Union for Ontario, and submitted the report of the joint committee on the Organization of Teachers in Ontario appointed in 1905. The report is as follows:

"We recommend the formation of an Organization of the Teachers of Ontario, to be known as 'The Ontario Teachers' Union.'

"That the objects of this Union shall be:

"1. To unite the teachers of the Province of Ontario in an Association for mutual improvement and protection.

"2. To provide a medium through which the teachers of the Province may give effective expression to their collective opinions on all educational questions.

"3. To provide a means whereby those who administer our educational affairs, both provincial and local, may secure information and advice based upon the experience of the associated teachers; and to further the co-operation of trustees and teachers in all educational interests.

"4. To determine and control the qualifications for entering the teaching profession; and to endeavor, on the one hand, to inspire teachers with proper ideals and aims in their work; and on the other hand, to form a public opinion in support of the best educational progress.

"5. To secure the proper recognition of the teaching profession in all appointments to the higher positions in the educational service of the Province.

"6. To secure the adoption of an equitable superannuation scheme for the teachers of the Province.

"7. To secure the compilation of a comprehensive register of the teachers of the Province.

"8. To afford advice in professional matters to individual members of the Union, and to give advice and assistance to them in legal cases of a professional nature.

"9. To extend protection to any of its members who may be wrongfully treated; also, to exact from them the proper fulfilment of their professional engagements.

"10. To discipline any of its members found guilty of unprofessional conduct."

The report was adopted.

The election of officers resulted in the following officers being chosen:

<i>President,</i>	- L. E. Embree, M.A., LL.D., Toronto.
<i>General Secretary,</i>	- Robert W. Doan, Toronto.
<i>Treasurer,</i>	- W. J. Hendry, Toronto.

Moved by W. F. Moore, Dundas, seconded by E. T. Young, Toronto, that we wish to place upon record our appreciation of the heroic conduct of Miss Maxwell, of Montreal, in her efforts to save the lives of the children entrusted to her care. "Greater love hath no man than this, that a man should lay down his life for his friends," and we ask that this motion may be embodied in the minutes of the Association, and a copy forwarded by the Secretary to the family. Carried.

The meeting adjourned at 11 p.m.

THURSDAY, APRIL 4th, 1907.

The Convention assembled in the West Hall at 8 p.m. President Scott in the chair.

Mr. G. J. Macmurehy spoke for a short time on School Savings Banks.

Mr. A. E. Winship, of Boston, addressed the Association on Larger Units of Educational Thought. (Page 108.)

Moved by Mr. J. H. Knight, seconded by Mr. W. W. Tamblyn, that the thanks of this meeting be tendered to Mr. Winship for his able and interesting address. Carried.

Moved by Mr. F. W. Merchant, seconded by Mr. T. W. Standing, that the thanks of the Association are due and are hereby tendered to the authorities of Toronto University for the use of the University buildings for holding this convention; to the reporters of the daily papers for the very full and accurate reports of the proceedings, and to the railway authorities for the expeditious way in which the vising of the railway certificates has been attended to. Caried.

Moved by Mr. C. W. Mulloy, seconded by Mr. D. D. Moshier, that the thanks of the Association are hereby tendered to the retiring President, Mr. Wm. Scott, for the courteous, able and judicious manner in which he has discharged the duties of President during this convention. Carried.

The proceedings of the Convention were closed by the singing of the National Anthem.

An instructive and delightful Conversazione was given by the President and the Professors of the University after the close of the meeting.

*MINUTES OF THE COLLEGE AND HIGH SCHOOL
DEPARTMENT.*

APRIL 4th, 1907.

The Department met in West Hall, University Building, at 9.30 a.m., the Chairman, Prof. W. S. Milner, Presiding.

By motion, the minutes of the previous meeting, as printed, were adopted.

The Chairman presented an informal report of the action taken by the Executive regarding Mr. Hodgson's retirement, as follows:

1. A circular had been sent to leading High School teachers throughout the Province, enquiring their opinion as to the desirability of urging upon the Government some special consideration for Mr. Hodgson in view of his long service as High School Inspector.

2. About one hundred replies had been received, all favorable.

3. A deputation had been appointed by the Chairman and had waited upon the Minister of Education. The Minister had replied sympathetically, and had promised a retiring allowance for Mr. Hodgson.

On motion of Mr. W. J. Robertson, a Committee was appointed to bring in some recommendation on the subject of Mr. Hodgson's retirement.

Mr. E. W. Hagarty, as one of the representatives of High School teachers on the University Senate, then briefly outlined the position of affairs in the Senate, so far as the schools were concerned. An effort had been made to secure the appointment of a special Matriculation Board or Committee in accordance with the recommendation of the College and High School Department, but, owing to opposition in the Senate, the motion was withdrawn in favor of a compromise by which the representation of High School teachers on the Board of Arts Studies was increased to two members.

A resolution had been passed by the Senate advising the Board of Governors to pay the travelling expenses of members of the Senate not resident in Toronto. This was a reform previously urged by this Department.

The Senate had restored the 33 per cent. standard on each paper,

rescinding the interpretation that it should apply to each 'subject.' A strong feeling was developing in the Senate in favor of a 40 per cent. matriculation standard, as urged a few years ago by this Department.

CHAIRMAN'S ADDRESS.

The Chairman then read his inaugural address, advocating a uniform programme of study for all pupils to the end of the High School course, and combatting the idea that education is for vocation.

Prof. Milner had had his address printed. Copies were distributed among those present, and further copies will be distributed by mail.

MR. KYLIE'S ADDRESS.

Mr. E. J. Kylie, University College, read a paper, entitled, "Specialization in College and High School Work."

He explained the Oxford course for 'Greats' and pointed out that after the first two years all language study, as such, was abandoned, and attention was devoted to philosophical research as a basis for modern speculation. He maintained that, in Canada, the Arts Course should be a broad training for life, or a groundwork for subsequent specialization in research. Undergraduate, as well as matriculation work, should lay stress on language study (preferably the Classics), as giving power for reflection and expression.

MR. WINSHIP.

Mr. A. E. Winship was present, by invitation, and commented upon the subjects raised for discussion by the Chairman and Mr. Kylie, complimenting the Department upon the tone of its deliberations. As a result of his observations in some two hundred High Schools in the United States, he brought two thoughts to bear upon our secondary school problems:

1. The tendency in the United States culture schools is to make special concessions to get pupils in.

2. Their aim is to take great care as to whom they let out.

The Harvard idea: To get as many in as she can, and give them as much as she can while there. The secondary school idea should be to produce "power, poise and alertness for the life beyond."

On motion of Mr. Steele, a vote of thanks was tendered Mr. Winship.

ELECTION OF OFFICERS.

The following officers were elected for the ensuing year:

<i>Chairman,</i>	-	-	Mr. J. Davison, Guelph.
<i>Vice-Chairman,</i>	-	-	Dr. W. Pakenham,
			Dean of the Faculty of Education,
			University of Toronto.
<i>Secretary,</i>	-	-	E. W. Hagarty, Toronto.

The following representatives of Sections were reported:

<i>Modern Language,</i>	-	-	-	J. Squair,
<i>Classical,</i>	-	-	-	D. A. Glassey,
<i>Mathematical and Physical,</i>	-	-	-	R. Wightman,
<i>Science,</i>	-	-	-	T. J. Ivey,
<i>English and Historical,</i>	-	-	-	W. J. Robertson,
<i>Commercial,</i>	-	-	-	W. Ward,

At a meeting of the Executive the following Directors were appointed to the Board of the Ontario Educational Association: Messrs. Squair, Ivey, Robertson and Ward.

At 2 p.m. the Department re-assembled.

The Special Committee appointed to deal with Mr. Hodgson's retirement reported in favor of having prepared and engrossed a suitable address expressing the appreciation of High School teachers of the valuable services rendered by Mr. Hodgson to the cause of secondary education during his inspectorate. Adopted.

The Chairman named the following committee to prepare the address and forward it for signature to the High School teachers of the Province: Messrs. W. J. Robertson, Strang, Martin, Milner and Glassey.

DR. LOCKE'S ADDRESS.

The Department then merged into a joint meeting of the Training, Inspectors', Public School, and College and High School Departments, and listened to an address by Dr. G. H. Locke, Dean of the Faculty of Education in McGill University, on the subject: "The Training of Secondary School Teachers and the Relation of the Universities thereto."

The speaker made it clear that his address would not be one of theoretical advice nor one of local significance, but would be

descriptive of the advance made in the training of secondary school teachers in departments of education in the United States during the past ten years. During eight of these years Mr. Locke has been actively identified with this work in the Department of Education in Harvard and in Chicago Universities, in the latter of which he had a complete school system for experimental purposes, a kindergarten, eight elementary grades, a high and manual training school, and a teachers' training college.

THREE ASPECTS OF EDUCATION STUDY.

The address was designed to develop the ideas that the training of teachers for secondary schools should be carried on in connection with a university, as is done in almost all universities in the United States; that there are three aspects of the study of education that deserve consideration, viz., History of Education, and Organization and Administration of Education; that in the first of these there should be opportunity for co-operation with the Department of History in the University, in the second with that of philosophy and psychology, and in the third with that of political science; that courses in these subjects should be allowed to count as credits toward the Bachelor's Degree.

SPECIAL SCHOOL OF PRACTICE WORK.

Then the speaker indicated the scope of the courses that might be given under these general headings, and proceeded to the other great division of training, the practice work. For this he advocated a separate high school wholly under the control of the Department of Education, and cited his reasons from practical experience with other systems. This practical work he divided into its two aspects, Observation and Practice Teaching, and showed how, in the first, there must be a course in problems of secondary education, so that the atmosphere of a High School will be familiar to the teacher, and a course in the teaching of his specific subject or subjects so that he may become acquainted with ways of handling the subject matter economically and efficiently.

Then the speaker discussed what he termed "the most difficult part of the organization of a Department of Education," the putting into actual practice of the knowledge acquired.

“What is necessary,” said Mr. Locke, “is a High School independent of external regulations and examinations, free from all deterrent influences, political, educational, local, an institution from which it is accounted an honor to graduate, having completed successfully four years of study; such a school would be an interesting experiment and proving ground for the other schools of the Province, and would be to education what an agricultural college and experiment station is to farming, and what a school of experimental medicine is to the practice of that art—an experiment station where those who hope to be of influence in helping boys and girls to find themselves and their work in the world may be trained economically and efficiently, and thus raise the standard of efficient social service in every community.”

Mr. Locke then drew an analogy from the progress in the teaching of natural science, and said that a man may no more become a teacher by simply handling children and text-books in a classroom than he may become a chemist by handling bottles and liquids in a laboratory.

HON. JAMES BRYCE'S VISIT.

At 3.15 the meeting was interrupted by a visit from the Hon. Jas. Bryce, British Ambassador to the United States, accompanied by Dr. Goldwin Smith and President Maurice Hutton.

After a few remarks from Mr. Bryce the proceedings of the College and High School Department were resumed.

The question of extending the time of the meetings of the Department was introduced by Mr. Wightman and the Secretary, but owing to the small attendance very little could be done. It was decided to arrange for a joint meeting of Section Executives between Christmas and New Year for the purpose of considering some means of increasing the interest taken in the meetings of this Department.

The Department then adjourned.

E. W. HAGARTY, *Secretary*.

MODERN LANGUAGE SECTION.

TUESDAY, APRIL 2nd, 1907.

The session opened at 10 a.m., in Room 9, University College, the President, Mr. E. S. Hogarth, in the chair.

The President gave an address on: "What should the Teacher of Modern Languages Teach?"

Messrs. A. E. Lang and M. J. McGarvin were appointed auditors.

Hermann Walter, Ph.D., Professor of Modern Languages in McGill University, Montreal, gave an interesting address in German on "Heine's Romanzero."

The Section reassembled at 2 p.m. Mr. H. V. Routh, B.A., of Trinity College, Toronto, read a paper on "The Importance of Studying the Literature of Past Ages."

Dr. Walter then read a paper in English on "The Teaching of French Phonetics in Schools."

Mr. A. E. Lang, of Victoria College, gave a paper on "Recent German Literature."

WEDNESDAY, APRIL 3rd, 1907.

The Section reassembled at 10 a.m. Mr. A. M. Burnham, B.A., read a paper on "The Educative Value of the Novel."

The auditors reported that the Treasurer's books had been correctly kept.

The following officers were elected for the coming year:

President, J. N. Dales, M.A., Toronto; Vice-President, Miss A. E. Marty, M.A., Ottawa; Secretary-Treasurer, J. Squair, B.A., Toronto; Councillors, Miss E. E. Conlin, B.A., Niagara Falls; Miss E. Henstridge, M.A., Kingston; W. C. Ferguson, B.A., London; E. S. Hogarth, B.A., Hamilton; J. S. Lane, B.A., Chatham; G. H. Needler, Ph.D., Toronto.

Mr. M. J. McGarvin, B.A., read a paper on "Teaching Tennyson to a Backward Third Form Class."

The Section reassembled at 2 p.m.

Mr. E. A. Hardy, B.A., of Moulton College, read a paper on "Ralph Connor."

Miss E. McManus, M.A., read a paper on "Isabella Valancy Crawford."

The Section adopted the following resolution: That, Whereas the literature of Canada, prose and poetry, is sufficient in both quantity and quality for study in our schools; and whereas, the study of the literature of one's country is a most valuable factor in developing national life; therefore, this section places itself on record as favoring,

(a) A course in Canadian literature in our training schools.

(b) Some recognition of Canadian literature in our courses of study leading to teachers' certificates and matriculation examinations.

(c) A request to the Ontario Library Association for co-operation in placing Canadian literature in our public libraries, and in the larger work of co-operation of public library and school.

MINUTES OF THE NATURAL SCIENCE SECTION.

TUESDAY, APRIL 2nd, 1907.

The annual meeting was held in the Biological Building.

The meeting was called to order at 2 p.m. In the absence of the President, the Vice-President, Mr. A. Cosens, took the chair.

The minutes of the previous meeting were read and confirmed, and the Treasurer's report received.

On motion, Mr. Arthur Smith was appointed Press reporter.

It was moved by Mr. Turner, seconded by Mr. Fletcher, that a committee, consisting of Mr. Ellis, Mr. Smith, Mr. McEachern, and the Secretary, with Mr. Turner, be appointed to report next day as to some method of expressing the feelings of this Section as to the death of W. H. Jenkins, formerly a member and President.

The first paper on the programme was then given by G. A. Cornish on "Should the Atomic and Molecular Theories be Omitted from the Curriculum in Chemistry," and, after very interesting discussions by Dr. Miller, Dr. Goodwin and other members, it was moved by Mr. Fletcher, seconded by Mr. Donaldson, that this paper, with a few necessary modifications, be printed in the Proceedings of the Association.

No exchange of specimens took place.

The meeting adjourned at 4 p.m.

WEDNESDAY, APRIL 3rd, 1907.

The meeting was called to order at 9.30 a.m.

On behalf of the committee appointed, Mr. Turner reported that a letter had been prepared, expressing to Mrs. Jenkins and family the heartfelt sympathy of the Section for their bereavement. This was adopted and the Secretary instructed to forward the letter.

In the absence of Mr. Lehmann, the discussion on the Course in Mineralogy was omitted, and the discussion on chemical text-books was introduced by Mr. Turner, who suggested that students in chemistry should have a suitable up-to-date laboratory manual, as well as a good readable book on the subject. As a result of the discussion, it was moved by Mr. Cornish, seconded by Mr. J. H. Smith, that in the opinion of this Section, the same liberty should be given to High School teachers in the use of all science text-books in the lower forms as in the upper. Carried.

Moved by Mr. Fletcher, seconded by Mr. Liddy, that the old committee, consisting of Mr. Turner, Mr. Hill, Mr. McCready, and the Secretary, be appointed to confer with the Department, and be given full power to obtain what concessions they could in the way of securing suitable text-books for science teaching. Carried.

It was also decided that this committee should obtain what information they could as to publications most suitable for the use of science teachers, and report at the next meeting.

Dr. Bensley gave a very interesting address, illustrated by lantern views, on "The Georgian Bay Biological Station," explaining the value it might be to science teachers.

Following this, a very instructive talk on "The Ice Age," was given by Mr. W. A. Jennings.

The officers were then elected for the ensuing year, as follows:

<i>Hon. President,</i>	-	-	Dr. W. L. Goodwin, Kingston
<i>President,</i>	-	-	A. Cosens, M.A., Toronto
<i>Vice-President,</i>	-	-	G. A. Cornish, B.A., Lindsay
<i>Sec-Treas. and Representative to College and High School Department.</i>	-	-	T. J. Ivey, M.A., Toronto
<i>Councillors,</i>	-	-	W. S. Kirkland, A. P. Gundry, W. J. Saunders, E. Morrison and M. R. Reid.

The meeting then adjourned.

The meeting was called to order again at 2 p.m., and a paper on "Science Equipment for Teachers and Schools," given by Mr. S. B. McCready, in which a good many helpful hints to teachers were offered. This paper was also ordered to be printed in the proceedings of the Association.

It was moved by Mr. Fletcher, seconded by Mr. Donaldson, that this Natural Science Section put itself on record as in favor of the formation of a teachers' union for the Province of Ontario, the main objects of which should be the elevation of the teaching profession, and the improvement of the conditions under which the teachers have to labor.

The meeting then adjourned to the Chemical Building to listen to a very instructive lecture by Prof. Rutherford, F.R.S., on the "Transformation of Matter," delivered before the combined Natural Science and Mathematical and Physical Sections.

T. J. IVEY, *Secretary.*

MINUTES OF THE CLASSICAL SECTION.

TUESDAY, APRIL 2nd, 1907.

The Section assembled in Room 2, University College, at 2 p.m.

On motion of Prof. Carruthers the minutes of last meeting were accepted as printed in the Proceedings.

The President, Mr. F. C. Colbeck, read his paper on "Reading." (See page 219.) His plea that the work be treated as literature found a sympathetic audience.

"The Teaching of Translation" proved an interesting topic for discussion in the hands of Messrs Auden, Fenton and Anderson. They united in deploring the lack of time given to the subject, and advocated a high standard of English. The use of "keys" was deplored, and the advantages of a good translation, properly used, were shown. Professor Milner felt that unless there were some improvement, Latin might better be made optional.

A rather warm discussion arose over the way in which the whole of Virgil's Aeneid II. was prescribed for the Senior Examinations. The majority of the teachers present were surprised

to know that the whole book was prescribed. Messrs. Hagarty, Mayberry and the Secretary were named a committee to interview the authorities with a view to having the last three hundred lines removed. On Wednesday the committee reported that an agreement had been reached, whereby no questions would be asked on the last three hundred lines.

Professor G. O. Smith read a short paper on "The Classical Association of England and Wales," showing the good work the Association was doing in drawing to it men who were not classical specialists, and in safeguarding the interests of classical education throughout Great Britain.

The following officers were elected for the next year:

<i>Hon. President,</i>	-	Professor Hutton
<i>President,</i>	-	H. J. Crawford
<i>Vice-President,</i>	-	C. A. Mayberry
<i>Secretary-Treasurer,</i>	-	D. A. Glassey, Harbord Coll. Inst., Toronto
<i>Councillors,</i>	-	A. Carruthers, H. W. Auden, P. J. Robertson, H. R. H. Kenner.

WEDNESDAY, APRIL 3rd, 1907

The Section reassembled at 10 a.m., before a crowded assembly. Professor Hutton delivered his delightful paper on "Plato and Poetry." Professor J. C. Robertson gave an interesting paper on "Some Greek Prejudices," and Professor W. B. Anderson, of Queen's University, spoke on "Literary Coteries in Ancient Rome," with special reference to the circle of Scipio.

The room was well filled in the afternoon, when the Hon. Mr. Justice Riddell, Dr. J. T. Fotheringham, and Prof. McCurdy spoke on "The Value of the Humanities, as a preparation for professional life." (See page 242.)

D. A. GLASSEY, *Secretary.*

*MINUTES OF THE MATHEMATICAL AND PHYSICAL
SECTION.*

TUESDAY, APRIL 2nd, 1907.

The Section met on the above date at 2 p.m., in Room 16, of University College, the President, Mr. H. S. Robertson, in the chair.

The minutes of last meeting were read and confirmed.

Mr. G. H. Hogarth was appointed Press reporter for the present meetings.

President H. S. Robertson then opened the programme by addressing the Section on "Modern Tendencies in Secondary Mathematical Instruction."

This was followed by Mr. Wilson Taylor's paper, entitled "Poetry of Mathematics," in which the subject was considered from an unusual point of view.

Professor W. Findlay, of McMaster University, then read his paper on, "Integers, Finite and Infinite."

The last two papers it was decided to have printed in the Reports of Proceedings of the Association, the authors being willing.

The meeting then adjourned till the following morning.

WEDNESDAY, APRIL 2nd, 1907.

This meeting was held in West Hall, Room 16 being required for lecture purposes, and was opened by the President calling upon Professor Alfred Baker, for his address, "Mathematics a Means of Culture." Like the papers presented on preceding day this was very interesting, but led to little or no discussion.

Mr. J. S. Wren then explained to the Section the marking adopted by the Associate Examiners for the different solutions of the problems on the Junior Leaving Arithmetic for 1906. This led to a good deal of discussion, much of the marking being considered very arbitrary.

A letter was read from A. DeGuerre, whose name was next on the programme, explaining his absence; so the item, General Business, was taken up.

A letter from the Secretary of the High School Department was read, asking for the financial support of the Section in the matter

of the expenses of Prof. G. H. Locke, in coming to address the Department. It was decided that the Section should assume its share of the expense, and the Treasurer was empowered to pay the same.

A verbal report of the Library Committee was presented by Mr. H. S. Robertson, apologizing for the unorganized state of the library as yet, and promising better for the future.

Mr. H. S. Robertson was appointed a member of the Library Committee in place of Major F. F. Manley, who had retired from the membership of the Section.

The Treasurer's report till April 20th, 1907, was read and adopted.

Moved by W. E. Rand, seconded by Alex. Steele, that for next year the programme be so arranged that the time for H. S. Department be a day and a half, and for the Section one day.

Moved, in amendment, that Mr. W. E. Rand report to the H. S. Department that this Section is willing to act with the other Sections in making such an arrangement. Seconded and carried.

The election of officers then took place, the following being elected, all by acclamation.

Honorary President,
President,
Vice-President,
Secretary-Treasurer,
Councillors,

Prof. Alfred Baker, M.A.
C. L. Crasweller, B.A.
Wilson Taylor, B.A.
R. Wightman, B.A.
Messrs. J. S. Wren, B.A., J. H.
Coates, B.A., G. H. Hogarth,
B.A., A. M. Overholt, B.A.,
Prof. W. Findlay, Ph.D.
R. Wightman, B.A.

Rep. to H. S. Dept.,

The meeting then adjourned.

When the Section reassembled at 2 p.m., Mr. J. T. Crawford was called upon to review the "Special Paper in Mathematics," set July, 1906. He introduced the subject by stating the purpose and consequent essential qualities of such a paper. The speaker then illustrated several methods of solution of the more difficult problems on the paper. Copies of the paper had been distributed among the members of the Section.

The meeting then adjourned to the Chemical Building to join the Natural Science Section to hear Professor Rutherford, of

McGill University, on "The Transformation of Matter." The auditorium was well filled, and a keen interest was maintained throughout the address. This was augmented by the knowledge on the part of the audience, that a great deal of the subject matter was the result of personal research, conducted by the speaker. A cordial vote of thanks was tendered Professor Rutherford at the close of his address.

The meeting then adjourned.

R. WIGHTMAN, *Sec.-Treas.*

MINUTES OF THE ENGLISH AND HISTORICAL SECTION.

The first session of the thirteenth annual meeting of the Historical Section of the Ontario Educational Association opened at 9.30 a.m., in Room 10, University College, with Mr. J. P. Hoag, B.A., the President, in the chair.

Mr. J. S. Carstairs presented the report of the committee on merging the Historical Section into an English and History Section. As stated in the programme of the General Association, a meeting of the teachers of English had been held at the Education Department in July, 1906, and the committee had received such encouragement from a large number of teachers that they had requested that the meeting appoint a small committee of those present to assist the Councillors of the Historical Section to prepare a programme for the present Convention. Messrs. O. J. Stevenson, Paed.D., of St. Thomas; J. Jeffreys, B.A., of Lindsay, and F. F. Macpherson, B.A., of Hamilton, were nominated.

The following programme was the result of the labors of the joint councillors:

TUESDAY, APRIL 2nd.

9.30 a.m.—Reading of Minutes. President's Address—"Relation of Public Libraries to the work in English and History."

10.30 a.m.—"Essential Facts in History for High School Entrants." C. B. Edwards, M.A.

11 a.m.—"A Fragment of the lost Proceedings of the Upper Canada House of Assembly, 1794, recently discovered." A. Fraser, M.A.

2 p.m.—“What attention has been paid by Examiners to the recommendations of Associate Examiners?” A. W. Burt, M.A.

2.45 p.m.—Appointment of Nominating Committee.

3 p.m.—“The Problem of Hamlet.” W. J. Alexander, Ph.D.

WEDNESDAY, APRIL 3rd.

9.30 a.m.—“Report of Nominating Committee and Election of Officers.”

10.00 a.m.—“A typical course in History in a typical United States School.” Geo. H. Locke, Ph.D. This address will be based on Prof. Locke’s experience as Inspector for the University of Chicago of High Schools accredited to that institution.

11.00 a.m.—The following resolution will be introduced by Mr. O. J. Stevenson, M.A., and will then be discussed:

Resolved, That in the opinion of this section it would be advisable: 1. That instead of the Texts in English Literature at present prescribed for work in the middle and upper schools a more comprehensive course should be substituted consisting of:

(a) For Intensive Study. A limited number of suitable short selections in poetry from such authors as Wordsworth, Tennyson, Browning, etc. (The number should be very small.)

(b) For General Reading. To serve as a basis for general questions in Literature or for subjects in Composition.

(1) A number (say three or four) of longer narrative and dramatic poems. (Intensive study of most impressive parts).

(2) A small number of complete prose essays.

2. That in connection with the course in Literature and Supplementary Reading in the Lower School:

(a) The texts to be read in each grade should be chosen from a list of shorter poems (or Anthologies), longer narrative and dramatic poems, and prose texts recommended by the Education Department.

(b) Pupils should be advised to choose the four books to be read each year in addition to the prescribed texts, from a list of recommended books prepared by this section and approved by the Department of Education. (Don’t handicap the wide-awake teacher who forges ahead of his fellows and puts brand new histories, biographies, novels, even poems, into the hands of his pupils).

2.00 p.m.—“History and the Higher Patriotism.” A. Stevenson, M.A.

3.00 p.m.—“Shakesperean Recital—Julius Cæsar.” F. H. Kirkpatrick, M.A., Professor of Elocution, Knox College and McMaster University.

NOTE.—This is the first meeting of the English and History Section. We need your help. Will you not give it? Membership is only 50 cents in addition to the general membership fee of the Ontario Educational Association. Every teacher of English or History should join.

On motion it was resolved that the report of the committee be received and adopted, and that this Section be henceforth known as THE ENGLISH AND HISTORY SECTION.

It was moved by Mr. J. S. Carstairs, seconded by Mr. A. Macvicar, that the Section grant five dollars to the College and High School Department to aid in defraying the expenses of special lecturers. Carried.

The President, in his address, spoke on the relation of public libraries to schools of all grades. The paper, which appears elsewhere in this volume, was followed by an animated discussion.

Mr. C. B. Edwards, B.A., Inspector of Public Schools, London, in a brief paper which appears elsewhere in these Proceedings, gave an admirable exposition of the new curriculum of history as it is working out to-day in the Public Schools.

After an interesting discussion on Mr. Edwards' address, Mr. Alexander Fraser, the head of the Bureau of Archives for Ontario, gave an account of the “Fragment of the Proceedings of the Assembly of Upper Canada, 1794,” which had been long lost and recently discovered. The first Legislature of what is now the Province of Ontario, met in 1792 at Niagara: the journals for 1792 and 1793 are available but those for 1794, 1795 and 1796, the other years of the first Legislature, had been lost. The records of the meetings of the Legislative Council also were lost. A portion of the records of the session of 1794, in the handwriting of the clerk of the House, he had recently discovered among the papers of the Ontario Legislature; and it was these documents, with a brief and modest historical comment that Mr. Fraser brought before the meeting.

AFTERNOON.

The meeting in the afternoon was well attended. The President, appointed as a Nominating Committee, after a brief discussion,

Messrs. I. M. Levan, B.A., Woodstock; J. S. Jamieson, M.A., Morrisburg; F. F. Macpherson, B.A., Hamilton.

Mr. A. W. Burt discussed the subject of "How much attention has been paid by Examiners of the Education Department to the recommendations of the Associate Examiners." He inferred from a recent paper on history that very little attention was paid by the examiner to the authorized text-books in history; that a deplorably exact knowledge of dates was required by certain questions; that notes at the head of the paper in regard to choice of questions were generally unnoticed by candidates. He would recommend that the group of examiners before "passing" a paper should write a set of answers; that they should assure themselves that the answers can be found in the authorized text-books, and can be answered within the time given; that the questions be free from ambiguity and be valued on the margin.

In the discussion which followed, Messrs. J. S. Carstairs and A. Stevenson took part, and did not wholly agree with the findings of the speaker.

Dr. Alexander discussed "The Problem of Hamlet," and developed the idea that in Hamlet there is a preponderance of the reflective powers over the power of action. He pointed out that everything that shows the character of Hamlet belongs to the main structure of the play. Dr. Alexander's address, which was the occasion of many appreciative comments from the large number of members present, is unfortunately not available for publication in this report.

WEDNESDAY, APRIL 3rd.

At the morning session, at 9.30 a.m., the Vice-President, Mr. A. Macvicar, presided.

The Nominating Committee presented their report which was received and adopted:

President,
Vice-President,
Secretary-Treasurer,
Director,
Councillors,

M. W. Wallace, Ph.D.
J. S. Carstairs, B.A.
A. Macvicar, B.A., London, Ont.
W. J. Robertson, B.A., LL.B.
E. J. Kylic, B.A.; A. Stevenson,
B.A.; A. Paterson, B.A.; R. H.
Walks, B.A.; A. Mowat, B.A.;
Miss E. J. Guest, B.A.

Dr. George H. Locke, of Boston, who in his varied experience has been Inspector of High Schools for the University of Chicago, gave an admirable exposition of the typical course in History in a typical United States school. Dr. Locke considered history an all-important subject owing to its influences on the assimilation of the foreign elements of our incoming population. He would encourage the waving and saluting of flags. A large number of enthusiastic members were present to hear his admirable address.

One of the most interesting and most important features of the meeting of the Section was the series of resolutions introduced by Dr. O. J. Stevenson. The discussion was spirited; and the conclusions reached are likely to be of permanent value.

It was finally resolved, on motion of Dr. O. J. Stevenson, seconded by Mr. J. S. Carstairs, that in the opinion of this Section it would be advisable:

1. (a) That instead of the texts in English Literature at present prescribed for work in the middle and upper schools a more comprehensive course should be substituted, consisting of:

(i) For intensive study a limited number of short selections in poetry; and

(ii) For general reading a number of longer narrative and dramatic poems; and that this matter be referred to the Executive to appoint a committee to deal with the matter.

(b) That there be a small number of complete prose selections; some for intensive, others for general, study.

2. That in connection with the course in Literature and Supplementary Reading in the Lower School:

(a) The texts to be read in each grade may be chosen from a list of shorter poems (or Anthologies), longer narrative and dramatic poems, and prose texts recommended by the Education Department.

(b) Pupils should be advised to choose the four books to be read each year in addition to the prescribed texts, from a list of recommended books prepared by this Section and approved by the Department of Education.

To act in the matter the following committee was appointed by the Executive:

Dr. O. J. Stevenson, Messrs. Jeffries, F. F. Macpherson, S. J. Radcliffe, and Miss Seeley.

The Committee on Historical Sites reported progress: and on

the motion of Mr. J. S. Carstairs, seconded by J. P. Hoag, it was resolved that they be requested to continue their duties.

The Secretary read a communication from Mr. E. W. Hagarty, B.A., Secretary of the College and High School Department, in which he thanked the Section for their uninvited assistance of five dollars in defraying the expenses of lectures. The communication was, on motion, ordered to be filed.

AFTERNOON.

The English and History Section met at 2 p.m. in the West Hall. The meeting was very large and markedly interested.

On the motion of Dr. O. J. Stevenson, seconded by Mr. A. Macvicar, the thanks of the Section were presented to all who had assisted in making the first meeting of the English and History Section so notably successful.

Mr. A. Stevenson gave an address on "History and the Higher Patriotism." He pointed out that much of the feeling that is exhibited in the guise of patriotism is merely tribalism, selfishness, conceit, arrogance or ignorance, or all combined. He pleaded for higher ideals, for a rational cosmopolitanism.

It was moved by Mr. A. Macvicar, seconded by Mr. J. S. Carstairs, and resolved, that the English and History Section of the Ontario Educational Association desires to direct the attention of the teaching profession of the Province to the satisfactory and rapid development of the work of the Ontario Bureau of Archives under the able direction of Mr. Alexander Fraser, in whom the Province has secured an enthusiastic and intelligent archivist—a combination of qualities of special importance in the early years of the Bureau.

That this Section heartily commends his work to the sympathy and support of the teaching profession; and expresses the hope that any assistance that can be rendered by way of collecting material of historical value will be cordially extended to him by all teachers.

And further, that, as an evidence of its sympathy with the valuable work in which Mr. Fraser is engaged, and of its appreciation of the interesting papers he has read before this Section, he be made an Honorary Member of the English and History Section.

That a copy of this resolution be sent to the Premier of Ontario and to the Minister of Education.

Professor F. H. Kirkpatrick, Principal of the Conservatory School of Expression, presented as a monologue his own arrangement of Shakespeare's "Julius Cæsar." The reading was vivid and dramatic.

Folowing is the list of members of the English and History Section:

W. J. Alexander, Ph.D., Professor of English, University College, Toronto.

C. L. Barnes, B.A., Toronto Junction.

H. Bonis, B.A., Head Master, High School, Vienna.

A. W. Burt, M.A., Head Master, Collegiate Institute, Brantford.

Miss Janet Carnochan, Niagara.

A. Clark Casselman, Normal School, Toronto.

J. S. Carstairs, B.A., Secretary, Dominion Liberal-Conservative Association for Ontario, Toronto.

J. H. Coyne, M.A., Registrar, St. Thomas.

Miss M. J. Cowan, Kemptville.

George A. Chase, M.A., Toronto.

W. A. Foucar, B.A., Head Master, High School, Glencoe.

Miss E. J. Guest, M.A., High School, Parkhill.

J. P. Hoag, B.A., Inspector of Public Schools, Brantford.

W. Houston, M.A., *The Globe*, Toronto.

Charles W. Horton, B.A., Harbord Collegiate Institute, Toronto.

J. S. Jamieson, M.A., Head Master, Coll. Inst., Morrisburg.

J. Jeffries, B.A., English Master, Jarvis St. C. I., Toronto

David R. Keys, M.A., Lecturer in English, University College, Toronto.

E. J. Kylie, M.A., Lecturer in History, University of Toronto.

J. Keillor, B.A., Jarvis St. Collegiate Institute, Toronto.

A. Mowat, B.A., Head Master, Collegiate Institute, Brockville.

I. M. Levan, M.A., Head Master, Coll. Inst., Woodstock.

A. Macvicar, B.A., Collegiate Institute, London.

H. P. May, B.A., Collegiate Institute, Brockville.

F. F. Macpherson, B.A., English Master, Col. Inst., Hamilton

George Malcolm, B.A., Collegiate Institute, Stratford.

A. J. Meiklejohn, B.A., Collegiate Institute, Ottawa.

W. Prendergast, M.A., Inspector of Separate Schools, Toronto.

F. J. Ramsey, B.A., High School, Dunnville.

W. J. Robertson, B.A., LL.B., Mathematical Master, Collegiate Institute, St. Catharines.

Miss B. Robinson, High School, Dutton.

Alexander Steele, M.A., Head Master, High School, Orangeville

A. Stevenson, M.A., English Master, Coll. Inst., Stratford.

O. J. Stevenson, Paed.D., English Master, C.I., St. Thomas.

Miss Janie Thomas, M.A., Jarvis St. C. I., Toronto.

M. W. Wallace, Ph.D., Lecturer in English, University College, Toronto.

R. H. Walks, B.A., English Master, C. I., Lindsay.

George M. Wrong, M.A., Professor of History, University of Toronto.

R. A. Wilson, B.A., High School, Carleton Place.

MINUTES OF THE COMMERCIAL SECTION.

<i>President,</i>	W. Ward, B.A., Toronto
<i>Vice-President,</i>	L. W. Taylor, Guelph
<i>Secretary-Treasurer,</i>	F. W. Edward, Chatham
<i>Council,</i>	Miss Reesor, Miss Bridgman, J. Neilson, J. A. Ramsay, H. S. Rosevear, C. S. Webster.
<i>Rep. to Gen. Executive,</i>	W. Ward, B.A.

One of the most successful meetings of the Commercial Section in recent years was held in Room 6, University Building, Toronto, on April 2nd and 3rd, 1907.

The trend of modern education is plainly towards the technical side, as is evidenced by the Government support that is being received by Technical Schools and industrial departments in the Public Schools and Collegiate Institutes throughout the country. In the established secondary school courses the one most keenly affected undoubtedly is the Commercial Course. On every side are to be found satisfactory signs of its growing importance; large increases in attendance in commercial classes; higher standards of work being exacted with satisfactory results; more demand than ever among business men for Collegiate trained office help and, also, a general agreement among High School

principals, trustees and the ratepayers, that the Commercial Department in our schools should have every possible chance to give commercial pupils a thorough, practical business education.

That commercial teachers of the Province are fully alive to the situation was clearly shown by the many discussions on points of importance throughout the meetings. The consensus of opinion was that, in order to meet the demands made upon the schools for competent office help, whether the commercial course be a two year or a three year course, as was strongly advocated, the final year, in any case should be a full year of specialization on one or both branches of commercial work, along with a broadening of commercial ideas by working along the lines of ethics and economics. More attention and time should be devoted to writing and typewriting, as these are essential points by which office assistants are judged. It is practically impossible to gain efficiency in either subject in less than one period per day on each throughout the school year.

The President, D. M. Walker, Esq., of Niagara Falls, occupied the chair throughout the session, and ably performed the duties entailed. On opening the meeting he favored the Section with a clear-cut address marking out the changes that have taken place during late years affecting the commercial teacher. Noticeable among these was the fact that the commercial specialist is no longer the recognized drawing teacher in our schools, Art work being designated to a specially qualified person. Commercial work is becoming more and more divided from other branches, thus necessitating the whole time of a highly qualified specialist to ensure its success.

Salaries of commercial specialists are gradually increasing, but as yet have not reached anything like a limit. The reason is obvious. Only a commercial teacher with good, sharp, up-to-date methods and business ideas will make a pronounced success in his profession. These are the very men that large business houses and corporations are anxious to pick up every day, and until the salaries paid commercial teachers are large enough to retain their services, the expert commercial specialist will surely seek a broader field.

J. A. Ramsay, of Kingston, in a carefully prepared and thoughtful paper dealt with the topic; "What the Business Man Expects the Commercial Course to Do for the Pupil." He em-

phasized the point that some commercial teachers are not in close enough touch with the business men of their community. It is essential that they should be, in justice to the pupils, so that they may find out the local requirements and also assist in placing their graduates in positions.

By careful enquiry, he noted that business men thought the Commercial Course could be strengthened by making pupils:

1. Better penmen.
2. Better typewriters.
3. More accurate on simple arithmetic, addition and fractions.

The graduate on securing a position, would stand a much greater chance of success if he were:

1. More courteous.
2. More thoughtful and used a little more common sense in his work.
3. More careful to do everything as well as it could be done.
4. Willing to forget that he thinks he knows it all, and willing to do everything just as instructed.

5. Of good deportment, neatly dressed, and with spotless linen.

On Wednesday, April 3rd, in the absence of W. E. McPherson, B.A., his paper on "The Future of Commercial Work in the High Schools and Collegiate Institutes of Ontario," was read by Mr. Ward.

After briefly outlining the present conditions and requirements he made a plea for a broader commercial course than that commonly followed. Two years, he said, was not sufficient to bring out and develop all that should be accomplished with a commercial pupil. He would have a three year course, the first year being mainly a general course, commercial work being limited to five periods per week on each of Writing, Business Forms and Rapid Calculation. In the average school this would require two commercial teachers, but even so this would not be unreasonable, since statistics show that 20 per cent. of all the pupils who enter Collegiates, go into commercial life, while in some localities the percentage is very much larger.

J. A. Dickinson, London, then covered briefly but thoroughly, "The Place of Correspondence, Spelling and Composition in the Commercial Course." Efficiency in these is indispensable, and while composition towards the latter part of the course may develop almost entirely into correspondence, these two with

spelling should run through the whole course, as ability in them is secured only by constant attention.

The afternoon session of Wednesday, April 3rd, was opened by W. Ward, B.A., Director of Commerce in the Technical High School, Toronto, with a paper on "Office Practice Work in Book-keeping." After giving an outline of different methods and expensive fixtures used in several American Business Colleges, he stressed the point that fancy office equipment is unnecessary. It is often used as a good talking point and drawing card with little or nothing behind it. The best training in book-keeping is that which best enables the pupil to interpret rightly all business papers and forms, and which gives him a clear knowledge of the way of dealing with them. The pupil's training should be mental training in grasping ideas and understanding the situation rather than a training in office routine.

This can be accomplished easier without office equipment. The pupil can secure a wider and more accurate idea of the whole subject by placing in his hands a budget of business forms and papers used in a type business with little or no explanation attached to them. These, he can go through, filling out, filing or mailing, as the case may be, and as there are no definite instructions given in the pad he can do nothing until he grasps the idea of the thing, and understands what should follow.

W. G. Edward, typewriting instructor in the Technical High School, Toronto, then dealt with "Typewriting Practice with Least Disturbance to Other Work." He prefaced his remarks by saying that in the High Schools and Collegiate course for stenographers, while sufficient time is spent on shorthand, typewriting has to a great extent been neglected. As a matter of fact the typewriting is as important as the shorthand, because it is by the former that a business man judges a stenographer, and if a stenographer cannot turn out a letter, accurate, in good form, and neat in appearance, he simply cannot hold a position with particular employers. The speaker had interviewed a number of employers, had obtained from them many criticisms on the work of stenographers and suggestions as to what is expected in this connection, and from these considerations propounded two questions: 1. What should a stenographer know? 2. How are we to accomplish it?

He said the whole claim of our Collegiate Commercial Course being better than the Business College Course is based on the fact that we aim at a good training in English—practical grammar, composition, correspondence and spelling. In addition to this and a good knowledge of shorthand, and directly pertaining to the subject in hand, the essentials a pupil should know are:

(1) Form, spacing, punctuation, margin, etc., of a business letter on various sizes of business paper.

(2) Methods of preserving copies of outgoing letters.

(3) Methods of filing letters and papers.

(4) Courtesy, neatness, etc.

Regarding the method to be employed, two points were stressed:

(1) Have pupil learn thoroughly the key-board (touch system advocated). (2) Examine every exercise written by the pupil so that he knows nothing escapes the teacher. After the junior pupils learn the key-board and are cautioned that *accuracy and neatness* are more than "speed," they should begin, from a book supplied at each machine, a regular series of exercises to be handed in. These would consist of (1) finger exercises on each bank of keys, (2) word exercises on each bank of keys, (3) sentence exercises involving all the keys, (4) letters copied from the books. This work would be followed in the second year by paying special attention to speed, at the same time retaining accuracy and neatness. Some devices suggested were:

(1) Five minute test at least once a week, copying on machine a paragraph of new matter from some book.

(2) Half-hour time test as often as possible transcribing on the machine from shorthand notes.

(3) Typewriting for form on different sizes of paper, letters previously dictated.

(4) Filling in accounts, invoices and shipping bills on the machine.

(5) Making out law and business forms on blank paper.

(6) Copying in letter-book any of above letters that were approved, and indexing letter-book.

(7) Give pupil knowledge of machine. Give him a wiper, needle, and brush, and expect him to keep his machine clean.

The above questions were dealt with from the teacher's standpoint in a High School and a Collegiate, where the teacher had

or had not time allotted to supervise the typewriting class, and in this connection the speaker considered many miscellaneous points, among which were the following:

Exercises.—How many pages to a budget; form of page, giving name, date, room, page, budget, and number of mistakes as counted by pupil; collection of exercises; examination of same, when and how, for erasures and mistakes; approval or rejection; progress of each pupil posted up; making of cover for budget; how to centre.

Neatness.—Chairs, books, papers and machine covers in proper places. Assign marks for business habits during term.

Time-table.—How many periods for junior and senior class; on what this would depend; plan to take in making of typewriting time-table at the beginning of term; difficulties considered.

Talking.—How to eliminate it in typewriting room; penalty that works best.

Skipping Periods.—Have time-table posted up in typewriting room, and let teacher of typewriting and Principal go into room as classes change or in middle of period occasionally.

Diploma.—Requirements in typewriting; test for form; time test from shorthand; time test from prose paragraph.

TUESDAY, APRIL 2nd, 1907.

The minutes of the previous meeting were taken as read and approved on motion of Messrs. Ward and W. G. Edward.

It was reported by the Secretary that the required examination papers to be used for the Commercial Diploma Examinations, had been received from prominent commercial specialists, and awaited final revision in committee before printing.

Moved by J. A. Dickinson, seconded by L. W. Taylor, that W. Baird, J. A. Ramsay and J. Neilson be a committee to revise the Commercial Diploma Examination papers before the close of the meetings. In case of absence of any of these three they were to be replaced out of the standing committee by the President. Carried.

A communication from W. H. Anger, Esq., asking for a resolution favoring the authorization of his book on Commercial Law was read by the Secretary, and Mr. Anger, who was present, said a few words in support of his petition.

It was moved by W. Ward, B.A., Toronto, and seconded by J. A. Dickinson, London, that in view of the fact that we have no text-book in Commercial Law, which is an important subject in the commercial course, we renew our request for the authorization of the book on this subject published by W. H. Anger, believing that this will not only provide us a text-book, but tend to a more definite statement of the course, and greater uniformity in the Commercial Diploma Examination. Carried unanimously.

It was moved by W. Ward, and seconded by J. A. Ramsay, that the President, the Secretary, J. A. Dickinson and Miss Bridgman be a committee to nominate officers for the following year, report to be made on April 3rd. Carried.

APRIL 3rd.

The Revising Committee's report that the Commercial Diploma Examination papers would be satisfactory, was received.

Moved by W. Ward, seconded by J. A. Ramsay, that the Commercial Diploma Examination papers be printed by the Secretary and furnished to the teachers of the Province at the rate of twenty-five cents per set for the first set, and five cents per set for each set thereafter. Carried.

ANNOUNCEMENT.

Because of the fact that there is no Departmental Examination to test the work of the Commercial Department of the Collegiate Institutes and High Schools, and in order to ensure a uniform standard in the work being done, the Commercial Section of the Ontario Educational Association has, for the past several years printed and distributed a set of Commercial Diploma Examination papers, to be used by commercial teachers in granting diplomas. The papers, eight in all, cover Book-keeping Theory, Book-keeping Practice, Business Law, Business Forms, Arithmetic, Correspondence, Spelling and Stenography Practice, and are printed in such a way that optional questions make them acceptable in almost every school. The standard of marking is suggested for some of the papers, but this as well as the marking is left to the commercial teacher and the Principal of the school.

MINUTES OF THE HIGH SCHOOL PRINCIPALS' SECTION.

Interesting papers were read as follows:

1. "A Fair Allotment of Time to the Subjects of the Time Table," James Davison, B.A.
2. "The Place of the Literary Society," T. M. McHenry, M.A.
3. "The Origin and Aim of the Continuation Class," T. E. Elliott, B.A.
4. "Should there be a Teachers' Union in Ontario?" S. Martin, B.A.

The following motions were carried:

1. That in the opinion of this Section, Senior Leaving Candidates who have already a certificate for Part I. should not be required to write on any history for Part II.; that those who have a Part II. certificate should not be required to take any subject of Part II., according to the present regulations, except Biology; and that Messrs. Steele and Gavin be a committee to urge this on the Minister.

2. That this Section fully endorses the views expressed by Mr. Martin in his paper; and that the Chairman appoint a small committee to confer with those who are to report to the General Meeting on Wednesday evening.

3. That this meeting of the High School Principals is strongly of the opinion that the standard for Junior Matriculation should be raised; and recommends that 40 per cent. be exacted on each subject, and 33 per cent. on each paper in the subject.

The following officers were elected:

<i>President,</i>	-	-	A. Steele
<i>Secretary-Treasurer.</i>	-	-	F. C. Colbeck

MINUTES OF THE PUBLIC SCHOOL DEPARTMENT.

TUESDAY, APRIL 2nd, 1907.

MORNING SESSION.

The Public School Department of the Ontario Educational Association met in the East Hall of the University of Toronto at 10 a.m.

Mr. C. E. Kelly, President, in the chair.

After devotional exercises, lead by the President, the regular business was proceeded with.

Dr. H. Gray, Toronto, was elected Minute-Secretary, and Mr. E. Ward and Mr. J. W. Rogers were elected auditors.

As the minutes of the last meeting were printed in the Annual Report of the Proceedings, they were taken as read and adopted.

The following communications were presented:

1. From West Huron Teachers' Association re the non-examination subjects of Entrance and Junior Teachers' Examinations.

2. From Napanee Woman Teachers' Association re the salaries of teachers in the urban schools.

3. From Waterloo Teachers' Association approving of the general provisions of the Public School Act of 1906.

4. From Waterloo Teachers' Association re the Entrance Examination paper in Written Reading.

5. From Wentworth Teachers' Association re Entrance Examination papers in Grammar.

6. From Toronto Teachers' Association re the holding of Teachers' Associations on Saturdays.

7. From Hamilton Principals' Association re the Entrance Grammar papers in 1905 and 1906.

It was moved by Mr. S. Acheson, and seconded by Mr. G. A. Cole, that these communications be referred to a Committee on Resolutions to be named by the President. Carried.

Secretary Charles G. Fraser then read his report which was received and the suggestions referred to the Committee on Resolutions. (See page 53.)

Treasurer, T. E. Langford then read his report showing:

Balance from last year	\$48 46
Total receipts	65 25
	<hr/>
	\$113 71
Total expenditure	51 75
	<hr/>
Balance on hand	\$61 96

The report was received and referred to the auditors.

Mr. Chas. G. Fraser then presented the report of the Committee on the Resolutions of 1907. (See page 45.)

The report was received and referred to the new Committee on Resolutions.

The President then named the following as the Committee on Resolutions: The Executive of this Department, and J. F. Curtis, Milverton; G. A. Cole, Orillia, H. Loucks, Norwood, E. Ward, Collingwood; Geo. Wilson, Lisle; H. S. Bates, Merrickville; J. D. Denny, Ottawa; T. J. Moore, Guelph; Miss T. McKenna, Woodstock.

On account of the illness of Mr. W. D. Spence, of St. Marys, Mr. T. E. Young introduced the question of an organized union of the teachers of Ontario, and presented a suggested draft of a constitution.

It was moved by Miss L. A. Carruthers, and seconded by Mr. J. W. Rogers, that the question of a teachers' union be further discussed after 4 o'clock to-day. Carried.

Mr. E. T. Young gave notice of the following motion:

That the Secretary of this Department shall be elected for a period of three years, unless and except at the end of any year during the term the executive recommends to the annual meeting by a two-thirds vote of the whole executive that the office be declared vacant, and a new Secretary appointed.

The meeting then adjourned.

AFTERNOON SESSION.

Joint meeting of Inspectors', Training, and Public School, Departments.

President C. E. Kelly in the chair.

Mr. F. W. Merchant, B.A., D.Pæd., read a paper on "Some Essential Conditions of Interest."

It was moved by A. A. Jordan, and seconded by J. Suddaby, that a vote of thanks be tendered to Dr. Merchant for his valuable paper, and that he be requested to have his paper appear in the Report of the Proceedings. Carried.

Inspector John Waugh, B.A., D.Pæd., then introduced the discussion of "The Amended School Act and the Rural Schools," and the following took part in the discussion: Inspector J. J. Craig, M.P.P.; Inspector Moshier, S. Acheson, D. Young, Dr. Merchant, A. A. Jordan, Inspector McLaughlin.

The meeting then adjourned.

The Public School Department was then called to order. President Kelly in the chair.

It was moved by Miss L. A. Carruthers, and seconded by J. W. Rogers, that this Public School Department of the Ontario Educational Association is in favor of the formation of a Protective Association for the School Teachers of Ontario. Carried.

It was moved by G. A. Cole, and seconded by P. W. Fairman, that E. T. Young, Chas. G. Fraser and C. E. Kelly, be a committee, with power to add to their number, to support the cause of a Teachers' Union before the General Association on Wednesday night. Carried.

It was moved by Miss L. A. Carruthers, and seconded by R. W. Fairman, that a vote of thanks be tendered to the committee which had done the work in favor of an organized union of the teachers. Carried.

It was moved by S. Acheson, and seconded by Miss Carruthers, that Mr. Fraser's expenses in connection with the securing of information regarding an organized union of the teachers be paid. Carried.

Mr. A. A. Jordan then gave notice that he would present a motion regarding the holidays in the rural schools.

The meeting then adjourned.

WEDNESDAY, APRIL 3rd, 1907.

MORNING SESSION.

Session opened at 9 a.m. with devotional exercises lead by Chas. G. Fraser.

President Kelly in the chair.

The minutes of the first day's meetings were read and approved.

The presentation of the report of the auditors was deferred till Thursday morning.

The report of the Committee on the Public School Speller was then presented. (See page 49.)

It was moved by John Rogers, and seconded by W. J. Blake-stone, that the recommendations be considered clause by clause. Carried.

The report was then amended by striking out the clause recommending a selection of memory gems.

The report as amended was then adopted.

It was moved by W. F. Moore, and seconded by J. Bennett, that it is with great regret we have heard of the death of Mr. A. F. Macdonald, who was for many years a member of this association—a gentleman who took an active, intelligent interest in all matters educational, courteous in argument, dignified in discourse—in fact a gentleman in whom the elements were so properly mixed that those who knew him best could say he was a man. Carried.

The Secretary was instructed to send a copy of this resolution to the relatives of the deceased gentleman.

The incoming executive was also instructed to write a letter of sympathy to the friends of the late Miss Agnes C. Purvis, of Brantford.

On motion W. F. Moore was requested to bring before the General Association a resolution regarding the death of the late Miss Sarah Maxwell, of Montreal.

Chas. G. Fraser then gave notice that he would move, that in the opinion of the Public School Department of the Ontario Educational Association the Bible should be a text-book in the Public Schools.

It was moved by W. F. Moore, and seconded by S. Acheson, that the Minister of Education be respectfully asked to extend the holidays in rural schools to correspond with the holidays in urban schools. Carried.

Mr. H. Ward, Vice-President, was then called to the chair.

Mr. C. E. Kelly delivered the President's address on "The Influence of the Teacher on the Life of the Nation." (See page 288.)

It was moved by H. Gray, and seconded by G. A. Cole, that the thanks of the Association be presented to Mr. Kelly for

his able and eloquent address, and that he be requested to have the address printed in the Report of the Proceedings. Carried.

The following officers were then elected:

<i>President,</i>	-	H. Ward, B.A., Toronto
<i>Vice-President,</i>		G. A. Cole, Orillia
<i>Director,</i>	-	C. E. Kelly, Hamilton
<i>Secretary,</i>	-	Chas. G. Fraser, 10 Sylvan Ave., Toronto
<i>Treasurer,</i>	-	T. E. Langford, M.A., Shelburne.

The meeting then adjourned.

AFTERNOON SESSION.

Joint meeting of Inspectors', Training, and Public School Departments.

Mr. John Dearnness in the chair.

Inspector T. A. Craig read a paper on "The Trustee System—Is it Satisfactory?"

A general discussion followed, and Inspector Craig was requested to have his paper handed in to be included in the Report of the Proceedings.

Dr. A. E. Winship, Boston, then delivered an address on "Personality."

The Trustees' Department then joined the meeting and Trustee M. Parkinson gave an address on "Some Points Picked up in the Toronto Public Schools." An interesting discussion followed, and Mr. Parkinson was thanked for his interesting address.

The meeting then adjourned.

THURSDAY, APRIL 4th, 1907.

MORNING SESSION.

The Session opened with devotional exercises led by Geo. A. Cole.

President Kelly in the chair.

The minutes of Wednesday's meetings were read and adopted.

Mr. J. W. Rogers then presented the Auditors' report, that the Treasurer's report had been found correct, but suggested that in future the reports should include all the monies paid to him, including the fees of the General Association, and the fees for viséing the railway certificates, and that the payment of these be properly vouched for.

The report was adopted.

On motion of G. A. Cole, seconded by W. J. Blackstone, the Secretary's account for postage for the past year, amounting to \$10.52, and the Treasurer's account for 73 cents, were passed.

Mr. J. Bennett then presented the report of the Committee on Resolutions, which was read and adopted clause by clause.

(See Resolutions, 1907, page 45.)

It was moved by J. Bennett, and seconded by H. Ward, that when this department of the Ontario Educational Association adjourns at noon to-day it stand adjourned till 3.30 o'clock to attend the meeting to hear the Hon. Mr. Bryce, the British Ambassador at Washington. Carried.

It was moved by Chas. G. Fraser, and seconded by H. A. Beaton, that in the opinion of this Department the Bible should be a text-book in the Public Schools. Lost.

Mr. J. Bennett was then called to the chair.

It was moved by D. Young, and seconded by H. A. Beaton, that a committee from the Public School Department be appointed to act with a similar committee appointed by the Inspectors' Department to outline more definitely the work of the Junior and Senior classes of the different Forms of the Public Schools. Carried.

The Chairman then named the following as the committee: D. Young, Miss J. P. Semple, J. D. Denny, H. A. Beaton and E. Ward.

It was moved by D. Young, and seconded by S. Acheson, that the officers of this department of the Ontario Educational Association be directed to again call the attention of the General Executive of the Ontario Educational Association to the fact that this department regards the charge for viséing railway certificates as most extortionate, and that the board be requested to have the matter arranged more satisfactorily. Carried.

The usual allowances were then granted: the Secretary, \$15; the Treasurer, \$5, and the Minute Secretary, \$5.

The meeting then adjourned.

AFTERNOON SESSION.

The meeting was called to order at 3.30.

President Kelly in the chair.

The subject of the Advisory Council was introduced by Miss H.

Johnston, Toronto, who was followed by J. W. Plewes, Chatham; A. A. Jordan, Port Hope; T. A. Reid, Owen Sound, and John Rogers, Lindsay, the representatives of the Public School and the Separate School teachers on that Council.

It was moved by Chas. G. Fraser, and seconded by J. J. Liddy, that in the opinion of the Public School Department of the Ontario Educational Association the members of the Advisory Council should have the power to introduce the discussion of any educational question. Carried.

It was moved by A. A. Jordan, and seconded by T. A. Reid, that the Education Department be urged to make Manual Training and Domestic Science compulsory in all urban centres in the near future. Carried.

A grant of two dollars was passed to Mr. Martin for his assistance in arranging the hall.

The resolutions of this department were referred to the Executive for further action.

The meeting then adjourned.

H. GRAY, *Minute Secretary.*

CHAS. G. FRASER, *Secretary.*

RESOLUTIONS, 1907.

For the consideration of the Education Department and the Teachers of the Province, and for discussion at the County Teachers' Associations. Let each association appoint a committee to report upon them, and send the report and the result of the discussion to the Secretary of the Public School Department.

CHAS. G. FRASER, 10 Sylvan Ave., Toronto.

LETTER SENT TO THE MINISTER OF EDUCATION WITH THE RESOLUTIONS OF 1907.

*To the Hon. R. A. Pyne, M.D., LL.D.,
Minister of Education, Ontario—*

DEAR SIR,—The members of the Public School Department of the Ontario Educational Association respectfully present the accompanying resolutions for the consideration of yourself and

your Department. They were passed at the annual meeting held in Toronto during the Easter Holidays, 1907.

We desire to thank you and your associates and advisors for the willingness you have shown to receive suggestions from the members of our profession, and the consideration you have given to our suggestions. We are assured of your desire to have the educational affairs of the Province placed on a proper footing, and in presenting these resolutions we desire to discuss with you some of the disadvantages under which we are laboring, that you may be enabled to provide the proper redress.

We appreciate the interest shown by your Department in the status and qualification of the teaching profession. We approve of your recent regulations and the provision you have made to enable teachers to improve their qualifications by private study. We would express our satisfaction with the action of the Provincial Government in the creating of an elective Advisory Council on educational affairs, and the provisions of the Education Department Act of 1906, which we believe to be greatly in the interest of education and the public generally as well as that of the teacher; and we trust the amended act of 1907 may prove not less satisfactory to the teachers and not less in the interest of education.

We desire to call your attention to the incorrectness of the statement which is frequently made that "*there is a scarcity of teachers.*" There may be a dearth of teachers who are willing to teach for a dollar a day, but there are many capable persons in the Province who are properly qualified but have been driven to other callings by the low salaries paid in the teaching profession and who, for an adequate remuneration, would return to teaching—the work which they prefer, the work for which they are specially qualified and adapted, and in which they have been eminently successful.

We would also respectfully urge that in view of the fact that there is no scarcity of teachers with the necessary legal qualifications, it is unfair to the parents, to the children, and to the teaching profession, to grant permits to those who are not legally qualified.

We would be pleased if you could favor us with an appointment at your earliest convenience to discuss our resolutions with you, your Deputy Minister and the Superintendent of Education.

Yours very respectfully,

CHAS. G. FRASER.

RESOLUTIONS.

1. That no certificate to teach, except as an assistant, be granted to any person under 21 years of age.

2. That Specialists' Certificates and Public School Inspectors' Certificates be granted as previous to 1897, and that for the latter an experience of ten years' teaching in a Public School, covering all grades of Public School work, be required.

3. That Principals of Continuation Schools, where at least two teachers are engaged exclusively in work beyond the Entrance Examination, should be members of the Entrance Boards.

4. That in the preparation of all Public School Text-books, Public School Teachers should be consulted.

5. That the present Practical Speller on account of its method of arrangement and the large number of unfamiliar words selected—words that are seldom used—is unsuited to the use of Public Schools, and that it should be replaced by a more suitable text having the following features:

a. The including of lists of words in ordinary use and those used in the teaching of the work of the present Public School curriculum; and the omission of all words that are seldom used or which are of a highly technical nature.

b. The including of words of similar meaning and those of similar sound which are in common use and giving the peculiar force or meaning of each.

c. The placing of the lists of "Difficult Words for Review" at the end of the book.

d. The arranging of the words of each group in three columns according to their difficulty, so that the work can easily be assigned to each class, giving each the attainable and the reasonable without the teacher having to choose and the pupils to mark the words, as is necessary with the arrangement of the present book.

e. The including of the prefixes, affixes and roots of the present work.

f. Ten or twelve blank pages at the end of the book for pupils' mistakes.

6. That the Ontario Readers, after twenty years of service, should now give place to a set of readers that would reflect more correctly our nationality of to-day; that would be more in accord

with educational principles in character of matter, arrangement and adaptation to the needs of the various grades; that would be models of excellence in illustration, type, paper, and binding; and that a separate reader be supplied for the work of each grade.

7. That the work for junior and senior classes in the different forms in the Public Schools be definitely defined.

8. That the Grammar papers of the Entrance Examination in 1905 and 1906 were of too highly technical a character and that in future the questions be more in harmony with the limit laid down by the Department.

9. That in the near future, Manual Training and Domestic Science be made compulsory in all urban centres.

10. That members of the Advisory Council should have the power to introduce the discussion of ANY educational question.

11. That the interests of Education in the Rural Schools would be best served by having Boards of Five Trustees to manage the school affairs of each township.

12. That the holidays in Rural Schools should correspond with those in Urban Schools.

13. That Section 91 of the 1904 Regulations be so amended as not to require the holding of a meeting of the teachers' institute on a Saturday.

14. That the Education Department be requested to make the School Year end on the 30th of June and to have the annual reports of the pupils' attendance made out accordingly.

15. That the appointment, payment, and full control of Truant Officers should be vested in the School Boards or Boards of Education.

16. That a Provincial System of Superannuation for Teachers, directed and aided by the Government, should be adopted, and that the whole teaching body of the Province should be required to contribute to the funds thereof.

17. That the attention of the proper authorities be called to what we regard as a most extortionate charge of \$190 for a few hours of clerical work viséing the railway certificates of those attending this Association.

REPORT OF THE PUBLIC SCHOOL SPELLER COMMITTEE.

Mr. Chairman, Ladies and Gentlemen—

Before presenting our report proper we wish to refer to one who was one of our committee, but who is with us no more. Miss Agnes L. Purvis, of Brantford, whose great sympathy and deep devotion, whose earnest zeal, broad views and high ideals made her a humanly perfect teacher, is now at home. Her paper of last year on "Men or Women Teachers" appears on the pages of the Report of the Proceedings of the Ontario Educational Association, 1906, and remains with us a testimony of the necessity of men and women teachers recognizing in each other a company of brothers and sisters, and an evidence of the strength such a union is.

At work one day and at home in the Father's Mansion the next—she died at her post; not perhaps as Sarah Maxwell died, but with the same heroic instincts, and capable of the same great demonstration of love—laying down her life for her friends. He gave His beloved rest according to His glorious promise.

We feel it an honor to have been associated with her, and a privilege to have known her. Her memory is a benediction. An ornament to woman-kind and an adornment to the teaching profession, she has gone to be a jewel in the Master's diadem—to be His "in that day when he numbers up his jewels."

The work intrusted to your committee was one calling for careful thought, continued work and constant consultation. This last was impossible, as apparently the members were selected to represent all parts of the Province, being chosen from Toronto, Brockville, Orillia, Galt and Brantford. The diversity of opinion expressed last year when the subject was up for discussion shows the care that must be taken in dealing with this question. Some recommended the abolishing of the speller in the school. Some would have the re-arrangement of the words of the present speller. Some advised the eliminating of all unusual and technical words. Some asked for a speller arranged according to the principles of spelling, and others asked to have the meanings of the words included.

As consultation during the year was impossible, and only two of our members are present this year, we have to base our report on the correspondence we have on hand, and which is in answer to the following questions sent out by the convenor immediately after the appointment of the committee:

1. What features of the book would you consider objectionable?
2. Which lists of words would you suggest omitting?
3. Which lists of words would you revise by (a) adding some words or (b) omitting some?
4. What additional lists would you suggest?
5. What additional work would you like to include in a practical speller?

“The Practical Speller” is a word-book containing lists of words grouped according to some topic of conversation or lists of names of things which are associated in life, and therefore very useful in composition; but this arrangement does not lend itself to the teaching of spelling. Though our language is not purely phonetic, there are some rules which would be of value to know. Such a point could hardly be discussed with the work of your committee or the result would be an entirely new book.

To put the present Public School Speller into better form and retain its particular features we would suggest:

a. The including of lists of words in ordinary use and those used in the teaching of the work of the present Public School curriculum; and the omission of all words that are seldom used or which are of a highly technical nature.

b. The including of words of similar meaning and those of similar sound which are in common use and giving the peculiar force or meaning of each.

c. The placing of the lists of “Difficult Words for Review” at the end of the book.

d. The arranging of the words of each group in three columns according to their difficulty, so that the work can easily be assigned to each class, giving each the attainable and the reasonable without the teacher having to choose and the pupils to mark the words, as is necessary with the arrangement of the present book.

e. The including of the prefixes, affixes and roots of the present work.

f. Ten or twelve blank pages at the end of the book for pupils’ mistakes.

REPORT OF THE LEGISLATIVE COMMITTEE OF 1906.

Mr. Chairman, Ladies and Gentlemen—

Your Committee on Resolutions considers itself fortunate in

being able to present so satisfactory a report of the success which has attended its efforts. Ever since 1897, the resolutions of our Department have been published, and a committee formed to urge our suggestions before the Education Department; but no such success attended the efforts of any of our predecessors as we report to-day, in the number of suggestions adopted and concessions granted.

This is not merely on account of the ability and persistence of the members of your committee, though they showed these qualities in a marked degree, nor was it on account of the brilliant oratory of those your committee called to its aid to present the resolutions to the Education authorities, though it was the best the Province could produce, nor on account of the reasonableness—nay, the wisdom—of your resolutions of 1906, though that is apparent to anyone who thinks, but added to all these we have found in every official of the Education Department a desire, a determination, to place public school matters on a proper basis.

The Honorable Dr. Pyne, the Minister, Dr. Colquhoun, his worthy Deputy Minister, and Dr. Seath, the Superintendent of Education, one and all, have shown us every courtesy, have granted us many interviews, have discussed our questions freely with us, and when they have prepared measures or had points under consideration have again and again consulted us. Our advice was not absolutely followed, but the following report will show that our suggestions were given every consideration possible; and decisions have been reached which were better than those we had suggested.

Last year the meeting of the Ontario Educational Association was very late. As quickly as we could we got the resolutions you passed into good form, and had them published in the *Canadian Teacher*. Eight thousand were also struck off to circulate through the province and present to those in authority. A committee was formed to wait on the Triumvirate of the Education Department. Each member of this committee was assigned one of your resolutions to urge before the department after making careful preparation. We secured an appointment for Saturday, June 23rd.

We were kindly received and patiently heard, and when leaving, the secretary offered to furnish the department with a list of the points advanced in favor of each resolution. This offer was

accepted, and Dr. Seath afterwards wrote asking that this memo be prepared at once, so as to be ready when each point would come up for consideration.

Resolution 1, in favor of raising the age limit to 21 years, was acknowledged to be right, but the present moment, when teachers are apparently scarce, is most unfavorable to the adoption of the resolution.

Resolutions 2, 3 and 4, regarding Model Schools, have been granted, and the position has been maintained by the Government, though assailed by many persons throughout the Province. The new Normal Schools are to supersede the old county Model School in the autumn of 1908, and the term will agree with the academic year. Successful candidates are to be granted temporary certificates, which will be made permanent if the candidate demonstrates teaching ability.

Resolution 5, regarding the granting of Public School certificates to graduates of the Normal College, is granted. In the new course which is being arranged, those preparing for High School work will have different practical work from those preparing for Public School work.

Resolutions 7 and 8, regarding compulsory Latin, and the division of the work for first-class certificates, were granted in a modified form, as is shown by the provision which has been made dividing the work for senior leaving into four sections and making Latin optional to those who obtained their junior leaving certificate or second class certificate previous to 1901. These provisions are set forth in circular 50, A., of the Education Department, issued September, 1906.

Resolution 9, regarding the preparation of Public School texts, was conceded to be just, and would be considered when such a question should arise.

Resolution 10, regarding the Public School Speller, will be reported on to this meeting at this session.

Resolutions 11 and 12 are being carefully considered by the department, and the Government. The report of the Text-book Committee, and the report of the "Child Labor" Commission, which has just been presented to the Legislature, shows how actively the Government is following up those evils which we have cried out against these many years, and had apparently cried in vain.

REPORT OF THE SECRETARY OF THE PUBLIC
SCHOOL DEPARTMENT.

Mr. Chairman, Ladies and Gentlemen—

The year now closing has been a very busy one in Public School circles. Since we met the two educational bills relating to the Public Schools and to the Education Department have become Acts of Parliament. They were prepared with the desire to place Public School matters on a proper footing, and were long strides in the forward march.

They demanded certain equipment in the rural schools, a minimum salary for the teachers, and made provision for the election of representatives to an Advisory Council of Education. Like all forward movements they were strenuously opposed in many quarters. The people have for so long a time been accustomed to the "state salary" advertisement, the consequent underbidding and the securing of a teacher at their own price, that they were horrified to think that any one, let alone an Ontario Government, should champion the cause of the teacher or dictate to the local authorities what they should or should not do. They had been accustomed to the fifth commandment of the Ross Pentologue, "Honor thy Trustees that thy days may be long in the land," that a dozen avenues to express their displeasure were sought.

Letters of criticism appeared each week in the public press. Trustee Boards and farmers' unions passed resolutions. Grangers presented a platform in which this new grievance figured largely. Deputations waited on the Government, and the local members were besieged. The letters in the press paraded the worthlessness of the teacher in general and the generosity, wisdom and devotion of the trustees in particular. The wages of a farm laborer were quoted and compared with the salary of the teacher. The long and the short hours of the two were contrasted. It was considered an outrage that a teacher, a mere girl, should get as much pay—and all in cash—as a great, big, strong man. The coercion of Britons was emphasized, and the poverty of the backwoods sections was presented till "seeming blessed they grew to what they seemed."

How did the teachers act? To the eternal disgrace of the

members of our profession only one—a High School man—had the courage to enter a protest. Only one appeared to have had convictions sufficiently strong to cause him to enter the lists to defend the teacher and sustain the action of the Government. The rest of us appeared indifferent, or were too busy, or were afraid, or thought the silliness of the letters would leave us secure and we could afford to ignore them entirely.

Is it not reasonable that a teacher should get more salary than a hired man on a farm or than the young teacher's associate of the same age in business? The teacher has spent five or six or seven years in preparation. He has been paying out money and laboring harder than his associate who has gone to business. The companion has had his nights off, and has had money to spend while in penury and hope the student has been burning the midnight oil to prepare himself for a special calling in life. Is it unreasonable, then, that when he has prepared himself, he should receive more than his companion is receiving? Yet the fact is, he gets less. That which requires the longer preparation, which demands the greater skill, which needs the highest, holiest character, the best executive powers and the largest expenditure of nervous energy, that work which is the most wearing on the vitality, which deals with the most precious we have—the lives of embryo men and women—which pre-eminently demands tact, judgment, sympathy, love and devotion, that work receives the smallest financial return.

New conditions demand new measures. Let the teachers now organize, or at least, act in concert. Let there be a concerted and combined effort made this summer and autumn to place the salaries a notch higher. Let the movement be directed from some central body where information may be had, advice secured and the general features of the campaign arranged. Then let each locality act in concert. The members of the trustee boards are, as a rule, the possessors of generous, manly hearts, and will measure up to the demands. "Necessity is the mother of invention," and are we not under the wolfish tooth of necessity? Let us then get up and invent. Who will play the Moses in this new drama? Will he also have the constant plottings and aspersions that Moses had, and the followers have the wilderness experiences which came to Israel; or will he be followed as Joshua was with the consequent possession of the Land of Promise.

The calls upon your secretary have been numerous and urgent during the year. The preparation, publication and circulation of the resolutions adopted by this department came first. Then the preparation of the minutes to appear in the Report of the Proceedings of the Ontario Educational Association, which was particularly heavy work last year. The Association was late, and before this could be arranged for, many of the associations in the various inspectorates had met. No less than twenty of the institutes meet in May this year and there are more to hear from.

Many resolutions have been passed in the various associations which will be presented to you. One resolution from Toronto, I would specially call your attention to, and would urge that a similar resolution be adopted by your Association. It will strengthen the hands of the Executive of this Department, and make possible the forward work we propose. The synopsis of the ten papers read last year before this Department of how the local associations could co-operate with the central association was sent to all the secretaries whose names we could secure. Copies are here for distribution. Take one. Read it. Bring it before your association. There are words of wisdom there. What can you do to make such an ideal real?

I have had no end of work to get my directory into shape. Some of our secretaries, even some of our inspectors, do not know the meaning of the word promptness in correspondence. Some apparently pigeon-holed my cards of inquiry. Some suspected I wished to run for the Advisory Council and information would be of some assistance to me. Some were perhaps indifferent, but many were prompt. The constant change of secretary is, I am convinced, a mistake and a weakness to our cause. Just when he is getting a grasp of the situation, has the list of the local secretaries, and is beginning to be known to the various individuals of the Province, there comes a change and all the knowledge and experience goes by the board—swept away by one great billow. Pass around the *honors* if you will but see that the *work* is done, and that there is some continuity to the policy of this department.

My letter-book is before you, showing the person addressed, the subject treated, the postage paid. I have sent out over eight hundred letters, cards, circulars and packets. I have now a list of all the associations, the secretaries, the time of meeting usually, and with many, the date selected for 1907. Let me hope that

you will be sufficiently interested to let me know the educational news of your inspectorate, the date of your convention, and the result of your deliberations. See that your Association passes a grant to our body to carry on the work we have inaugurated, and which we hope to carry to a successful conclusion.

From time to time I have placed the interests of your department before the members of the teaching fraternity through the columns of the *Canadian Teacher* and the *Teachers' World*. I think there should be a regular page in every issue of these two papers with the announcements the secretary would like to bring before you all. Read those, keep yourself posted and be an assistant to the Secretary of this Association, your association, and, therefore, your secretary.

I have had many appeals for information as to the schedules of salaries paid throughout the Province, and was pleased to be able to assist in various efforts which were made to improve the financial conditions of several centres. I am of the opinion that we could have a central bureau of information to organize a regular concerted movement to advance the teachers' salaries. "God helps the man who helps himself," though not a direct quotation from the Bible is thoroughly Biblical, and we must do something to make up for the retreat the Government has been compelled to make. Concerted manly and womanly action must bring success. I am sorry to say that I have heard of schools which formerly employed a male Principal at a fair salary having been compelled to engage a lady Principal and give her only a "lady's" salary.

We have in preparation a directory which will contain the names of the schools of every village, town or city in the Province, the name of the Principal, the salary paid, the number of rooms in the school and the salaries paid the assistants. Let the Secretary have all the information you can on these points. It will be casting bread upon the waters which shall return after many days, if not in the near future.

Thanking you for past support, and trusting that the coming years may see the continuation of the good work we are organizing, I am,

Yours very sincerely,

CHAS. G. FRASER.

MINUTES OF THE KINDERGARTEN DEPARTMENT.

TUESDAY, APRIL 2nd, 1907.

The Kindergarten Department of the Ontario Educational Association held its first session this morning in the Ladies' Reading Room of the University of Toronto. The membership, which exceeded that of last year, represented many Kindergarten centres.

After the singing of the Teachers' Hymn the minutes of the last convention were read and confirmed. A communication received from Miss Harriet Johnston, representative on the Advisory Board of Education, by the committee appointed last year, was by a unanimous vote laid over for consideration until the afternoon session.

For the International Kindergarten Union, which meets in New York in May, Miss Grace Johnston, of Stratford, and Miss Maud Paterson, of Toronto, consented to act as our delegates.

At the conclusion of the business the President, Miss Johnston, delivered an address which was a most earnest and urgent appeal to all Kindergartners throughout our Province to realize the great mission of Kindergarten environment for all children. With this statement, "Running parallel with the advancement of Christianity in a nation's history, we invariably find an increased interest in the period of childhood," Miss Johnston introduced the thought which permeated her entire address. The consideration of the claims of child life were very clearly shown to be the result of Christian ideals. The sacred books of Egypt, India, China, Persia, Greece and Rome hardly recognize these claims and few are the stories of child life found in them. Excellency of attainment along other lines characterized the life of these nations, but they had not learned to measure values by weighing the soul.

To quote again Miss Johnston's words, "The wonderful world of nature has always been a fascinating instructor, extending the sympathies and interests over earth, sea and sky. Despite this fact, nature study can never reach its highest good till it embraces, not only the study of things, animate and inanimate in the world about us, but also the study of God's masterpiece of creation, 'A little child.'" An earnest wish was expressed, that succeed-

ing the Government's action at present which has sent forth competent men to demonstrate the educational value of technical training, and the growing attention which the subject of Agriculture is demanding, that while all life is exceedingly precious, and the efforts along these lines most encouraging, governmental interest might advantageously turn from the High School to the Kindergarten, and then back again to establish the study of child nature in our higher institutions. Young men as well as young women would then awaken to the needs of little children, and a better foundation for the responsibilities of parenthood would be established. The study of the early history of our country, of primitive arts, and the myths of literature, should be accompanied by the study of infancy and childhood. These should be given a place, and unlike the specialist who devotes his time to the education of defective or abnormal children, the student should study the *normal* child.

As representatives of those vitally interested in child culture Miss Johnston urged earnest discussion in the interests of our cause, and the uniting of effort for the establishment of more Kindergartens throughout Ontario. Very strongly was definite action advocated to arouse the public from the mere acceptance of the Kindergarten in a way that is at times discouraging. Disapproval of the present system of examination of first year students was expressed. Statistics of the growth of the Kindergarten movement from the year 1882 were given.

Included in the address were the suggestions of many Kindergartners which the Secretary had received in a special effort put forth this year to unify our work, and to ascertain the different viewpoints. Each Kindergarten in the Province had been personally addressed, the Executive had endeavored to embody in our programme for this week some of the suggestions received.

In the discussion which followed, the thought was emphasized that the standard of the entrance of students be included in a resolution which was being prepared to bring before the Minister of Education, also that a Kindergarten Inspector for Ontario be appointed. This was also to be a part of the resolution referred to above.

In the absence of Hon. R. A. Pyne, who was to have addressed us on "Our Provincial Outlook," the President called upon Mrs. Hughes to deliver an impromptu address on this subject. In her

own and unique way, Mrs. Hughes drew forth a discussion from the members which undoubtedly surprised themselves, as they realized how freely they gave expression to their thoughts pertaining to the question, "Why did they desire the extension of Kindergarten work?"

Mrs. Hughes then summed up the consensus of opinion which embodied the thoughts of the child's social needs, and the awakening of executive ability. Between the ages of four and six the child has a social birth, this is a distinct stage in the growth of the soul. It is at this stage that the Kindergarten meets the needs of the growing child, it was because of this need that Froebel had embodied universal principles of life, in the material he planned, thereby giving the child opportunity to come in touch with these principles in a concrete form.

The question for all teachers was, "What will make this social being a social power?" What is there in the two years of Kindergarten training that we must give the child that will lead to the ultimate goal of true living. This thought brought to a close the very helpful suggestions of Mrs. Hughes.

The meeting adjourned at 12.20.

The first business of the afternoon session was the consideration of the letter laid over from this morning's session. The President read the resolution as draughted, and a committee composed of Misses Johnston, Heakes and Brenton was appointed to at once wait on the Minister of Education.

Mr. C. B. Edwards, Public School Inspector of London, was introduced to the audience. The subject upon which he addressed us was, "Kindergarten, from an Inspector's Standpoint."

Mr. Edwards, in giving his viewpoint, evidenced keen observation, a sympathy, and a sound appreciation of the work of the Kindergarten. Good missionary work could be done, and was done by zealous and enthusiastic Kindergarteners in communities which did not apparently realize the benefit accruing to their children and themselves by Kindergarten training. The attitude of Kindergarten children to nature, Mr. Edwards regarded as one of the most impressive results. He then dealt with the question of the co-operation of Kindergarten and Primary teachers, and how best could it be brought about.

Dr. Glashan, Inspector of Ottawa Schools, who was the next speaker on this question, began his address at this particular point.

In a very clear manner he pointed out that mutual helpfulness was the result of intimate association, and the attitude of mind to give and take. He believed in the Kindergarten because it gives freedom, it had a desirable effect upon all teachers, grade teachers included, in that it brought them nearer to child life. The true attitude of a teacher to a child was not "come up to me," but "come up with me." The Kindergarten foundation was nervous energy, this was to be built upon by the primary teacher, the watchword was "growth," the process begun was but the first stages of a growth that continued throughout life.

Dr. Glashan's thoughts concerning this subject deeply impressed his listeners with the fact that his influence in our work could not be too highly regarded. What he has come to believe after years of closest study inspires us to noble effort.

In the absence of other inspectors who were to have addressed us the President announced that after the inspection of original work, a discussion would conclude the afternoon session.

Specimens of work from Toronto Normal, Brantford, Ottawa, London, Cobourg, Owen Sound, Welland, Listowel and Stratford were on exhibition. Great interest was manifested in the free work; this called forth a most animated discussion in which many participated.

The meeting adjourned at 5.15.

WEDNESDAY, APRIL 3rd, 1907.

The second morning of our convention was one of greatest satisfaction. It opened as usual with the singing of the hymn, after which the minutes were read and adopted, also the Treasurer's statement showing a balance of \$33 on hand.

A slight change was made in the programme; it was deemed advisable, under existing circumstances, to have the election of officers take place at this juncture in the meeting. The re-election of all officers was unanimously carried.

The President then called for the temporary appointment of a President to act when the deputation appointed to wait on the Minister of Education, had to leave. Miss L. N. Currie, of Toronto, was asked to discharge said duties.

In a few well chosen remarks Miss Johnston, in introducing Dr. Helen MacMurchy, of Toronto, expressed our appreciation of the pleasure we anticipated in hearing "The Child's Physical Needs," discussed by one ably fitted to speak on this subject.

From the beginning to the end of her address Dr. MacMurchy held one of our largest gatherings in sympathetic response. All felt that the strong pleas she made were based on a most thorough knowledge of her subject. Health was a moral duty, and must be regarded as such. After giving most completely causes relating to the sad mortality before the age of four is reached, ways and means to supply the urgent needs of the child's physical life were then considered. Many definite ideas in the adjustment of the right conditions for the child's growth were given.

The address was by resolution requested to be printed in the Proceedings (see page 393). A very hearty vote of thanks was tendered Dr. MacMurchy for her valuable address.

At the opening of the afternoon session reports of Kindergarten work throughout our Province were given, Stratford, Listowel, Welland, Chatham, Cobourg, Peterborough, Guelph, Toronto, Ottawa and London reporting. Very gratifying were the accounts of faithful and progressive work undertaken.

Miss Heakes reported for the deputation which waited on the Minister of Education. Dr. Pyne has promised to give the resolution his earnest consideration.

In the absence of Mrs. J. A. Jackson, of Toronto, who was to address us on "Mother Meetings," the Secretary read the paper prepared by Mrs. Jackson. The paper was one which embodied the need, and ways and means for organizing. Greatest tact on the teacher's part was the one successful way. A splendid illustration was given of how one Kindergarten had organized. This could not but convince all of the possibility latent in every community of mothers. Miss Maud Paterson, of Toronto, followed in "Suggestions for Programme for Mothers' Meetings." She would base her programme on Froebel's "Mother Play Book." The principles there embodied touch every phase of a mother's life with her children, their concrete illustrations illuminate the mother's pathway as nothing else can.

Miss Loucks, of Ottawa, outlined what some of the mothers of that city were doing, how helpful had been the mutual exchange of thoughts.

Brief accounts from other places were given by Kindergartners present. All felt that earnest work is being done where sincere efforts are put forth.

The meeting adjourned at 4.20.

THURSDAY, APRIL 4th, 1907.

The reading and adoption of the minutes of the previous day was the only business preceding the consideration of this morning's subject, a subject of very vital importance to every Kindergarten, "Limiting the Occupations to Modeling, Painting, Free-hand Cutting and Drawing and Constructive Work, the children have a fuller, freer development than by using the regular Froebel series." This part of the question was discussed by Miss May Allison, of London. The above, plus "Folding, School Cutting, Weaving, Sewing and Net Drawing," was taken up by Miss Maud Hotson, of London. Strong influences have brought this question to the front in Kindergarten education—it becomes a question which requires most careful study. Thoughtful and instructive papers were given by each writer.

In the paper prepared by Miss Allison on Part I. of this question, it was shown very clearly that the free occupations do not leave the child wholly unguided, with freedom changed to license. With the teacher rests the success of the free work. It is through her studied suggestions that the child will be led naturally from one plane of development to the next. These occupations, by the incentives which they offer to full, free expression, prove themselves a perfect medium for the transition from the lowest to the highest. In the apparent freedom the child is ever working under law; he still is guided by suggestion. The constructive work was shown to have a good psychological basis; it provides "all the conditions for attention." Appreciation is the basis of interest. In this work there is a definite image to be realized, and such an one that of itself suggests ways and means for its realization. In the occupations referred to is presented an all-round unlimiting medium which leaves the child free to express according to his ability, yet by means of imitation and suggestion he is led to a higher plane of development, with a deeper knowledge of himself.

Miss Hotson in considering Part II. of the question, held that for a right view of the subject we need a clear understanding of the work attempted by previous educators, Pestalozzi and Froebel in particular, as well as insight into child life. The interaction of handwork and mental development were illustrated by reference to Pestalozzi, and such modern schools as "Tuskegee" and the Industrial Art Schools of Philadelphia. The importance of forming good habits, the strong imagination of the kindergarten

child, and the desire for imitation and repetition call for such handwork as Froebel has arranged for small children. His occupations are avenues for the building up of right habits, habits of doing, habits of order (sequence, process), of industry, of neatness and of accuracy. Solid material such as building blocks, and plastic material as clay and sand are suitable means for original work, and for giving clear imagery. To home occupations and to the higher grade belongs the greater part of the free work attempted in Kindergarten, where direct stimulation of the essential faculties is to be avoided.

A very animated discussion followed the reading of the two papers. Mrs. Hughes expressed a firm conviction that a more earnest study of what Froebel *meant* his series of occupations to do for children would, if faithfully pursued, lead to a revelation of truth—process was the keynote. Up to seven years the child was a *discoverer*, not a student.

In the afternoon, a most valuable paper on "Stories" was given by Miss Lilian Allen, of Ottawa. A good definition was given of what is meant by a story—a story worthy of the name, "A story is the expression of a universal truth, as grasped by an individual and presented by him in a form and setting familiar to his hearers." Repeating the statement that stories express universal truths, Miss Allen classified them into the following four classes:

1. Truths concerning the unity of all nature and man's communion with nature. (Ill. Kipling's Animal Stories.)

2. Truths dealing with man's social relations, the interdependence of man and man, of the individual and the family, of the individual with the community, and later on with the state. These deal with the duties of citizenship, with the sacrifice of individual wishes for the common good. (Ill. Little Hero of Haarlem.)

3. Truths regarding many physical laws, elements and man's body, *e.g.*, that direct contact with fire injures the body; the effects of the seasons on vegetation. A knowledge of these laws is necessary for the preservation of man's life.

4. Moral truths concerning actions and their consequences. These last truths embodied in stories are of the most vital importance, for they cultivate the natural and correct attitude toward right or wrong doing, and help the child's impulsive actions to come more and more under control of the growing will.

All stories worth telling will contain the same truths as found in the classification just mentioned. There are no new plots or moral principles to be brought forward to-day.

In concluding her paper, which was full of good suggestions, Miss Allen in the following words made a strong appeal to the teacher, "Live up to the ideals in your stories, for the children's faith, and trust in you will give the truths you seek to teach double force; the corner-stone in the building of his character is faith in you."

"The Art of Story Telling" was then discussed by Miss Gertrude Bapty, of London. Very clearly did Miss Bapty show this to be a true art. While it is the oldest art in the world, it is yet the newest, because for the first time a scientific basis is given. Continued practice is needed to make perfect this art, mechanical details must be mastered. What seems to be spontaneity is really hard work.

Most helpful thoughts were given on the essentials and dangers of the story teller. First, the story should always be carefully chosen and studied until one knows the best way to present it to the children. Skill and imagination in the treatment of the subject were needed. The voice, musical and sympathetic, will assist greatly in the perfection of the art. It should, through culture, become variant in inflection. Securing the right atmosphere, this was another essential. Some of the numerous mistakes made by story tellers were pointed out, for example, breaking off in the story, with questions to see how the children were following; the danger of over illustration, of appealing to eye and ear at the same time; of moralizing, which in the latter case should be so exquisitely woven into the story that it would be like the mignonette in the garden, ever fragrant, but hard to find. A plea was made to lead the children to the best in literature. The colored newspaper supplements were referred to as having a most pernicious effect upon the morals of child life; the circulation of such should be discouraged by every one who would protect the child from degenerating influences.

A very hearty discussion followed the reading of both papers.

The sincere thanks of the Department was unanimously accorded all who had so unsparingly given their time and consideration to the subjects on our programme. To them we feel indebted for the success which crowns the convention of 1907.

CLARA BRENTON, *Secretary.*

MINUTES OF THE TRAINING DEPARTMENT.

TUESDAY, APRIL 2nd, 1907.

The Training Department of the Ontario Educational Association met at 10.20 a.m., in Room 8, of the University of Toronto.

The opening exercises were conducted by Mr. Jno. Dearness, M.A., Chairman of the Department, after which he delivered a most practical address on "The Test of an Education." Discussion followed by Messrs. Plewes and Suddaby, and the paper was ordered to be printed in the Proceedings.

A printing committee was then appointed, composed of Messrs. Dearness, Broderick and Wilson.

"The Future of the Model School Master" was then discussed by Messrs. Plewes, Reid and Jordan, after which the Department resolved itself into a committee of the whole to discuss the following resolutions:

1. Resolved, that all Model School masters having at least ten years' successful experience, as certified by the Provincial Model School Inspector, be granted Public School Inspectors' certificates.

2. Resolved, that all Model School masters with less than ten years experience be granted Public School Inspectors' certificates on passing the examination for the degree of Bachelor of Pedagogy or an equivalent.

3. Resolved, that all Model School masters who have reached the age of 55 years, and who have at least ten years' experience in Model Schools, be granted a money consideration.

4. Resolved, that all Model School masters holding a degree in Arts be granted a Public School Inspectors' certificate.

5. Resolved, that the Government, when appointing masters to the positions in the Normal Schools, give the claims of the Model School masters, on account of their special fitness, first consideration.

This report was received and adopted, after which the meeting adjourned.

WEDNESDAY, APRIL 3rd, 1907.

The Department met at 9.45 a.m. The Chairman conducted the opening exercises. The minutes of the previous meeting were read and confirmed.

The election of officers for the ensuing year then took place, resulting as follows:

<i>Chairman,</i>	-	-	-	Dr. S. Silcox, St. Thomas
<i>Secretary,</i>	-	-	-	Wm. Wilson, Toronto Junction
<i>Director,</i>	-	-	-	S. J. Keys, Cornwall

Dr. S. Silcox then discussed the following topic: "The Emotional Value of Literature." This proved to be an exceedingly interesting and instructive paper, and will appear in the Proceedings.

An adjournment was then made to the Parliament Buildings to wait on the Minister of Education and the Superintendent of Education re the Model School masters' resolutions.

THURSDAY, APRIL 4th, 1907.

The Department met at 9 a.m. The Chairman conducted the opening exercises. The minutes of last meeting were read and confirmed.

Mr. A. A. Jordan, Port Hope, then read a very thoughtful paper on "The Teaching of Citizenship in the Public Schools."

Discussion followed by Messrs. Suddaby, Dearness, Keys, Silcox and Hallett. A motion was adopted recommending "that instead of floating the flag every day over the school the Education Department name a list of days on which it should be floated."

Mr. S. J. Keys, Cornwall, then exemplified his method of teaching arithmetic. The order in which he presented the various parts of the subject met with the co-operation of those present.

Dr. A. H. Abbott, Toronto University, discussed the question: "What Should Experimental Psychology Contribute to a Theory of Education." His views on the subject will be found in the Proceedings.

A hearty vote of thanks was tendered Dr. Abbott for his instructive address.

The convention of 1907 was then closed.

WM. WILSON, *Secretary.*

MINUTES OF THE INSPECTORS' DEPARTMENT.

TUESDAY, APRIL 2nd, 1907.

The meeting of the Inspectors' Department was opened at 10.45 a.m. W. H. Stevens, B.A., of Lindsay, in the chair.

The following newly-appointed Inspectors were present and introduced: C. W. Mulloy, B.A., of North York; Thos. Jamieson, B.A., of Carleton; D. A. Nesbit, B.A., of Lennox and Addington, and J. W. Marshall, B.A., of Welland.

W. E. Tilley, M.A., Ph.D., of Bowmanville, and F. W. Shepard, of Berlin, gave interesting addresses on "Grading of School Premises." Any scheme of "grading," to be satisfactory, must readily adjust itself to the varying conditions existing in rural localities, must be easily understood by the trustees, and besides being a basis for the distribution of grants, must be a stimulus to local effort.

J. J. Craig, M.P.P., outlined the chief features of the proposed new regulations for the distribution of rural school grants.

WEDNESDAY, APRIL 3rd, 1907.

W. H. Stevens, B.A., in his "President's Address," dealt with the duty of the state to the child. The state must provide an efficient system of education. The following points were emphasized:

1. The course of study must be a properly balanced one.
2. The teachers must have high qualifications.
3. The remuneration of teachers must be adequate.

Dr. Price, Secretary of the International Bible Reading Association, and J. A. Jackson, General Secretary of the Provincial S. S. Association, addressed the Inspectors, advocating the adoption of the International Bible Readings for the opening exercises of Public Schools.

The election of officers resulted as follows:

<i>Chairman,</i>	-	-	-	John Waugh, B.A., D.Pæd., Whitby
<i>Secretary,</i>	-	-	-	T. W. Standing, B.A., Brantford.
<i>Director,</i>	-	-	-	C. B. Edwards, B.A., London

G. K. Mills, B.A., of Barrie, gave a very interesting address on the "School Systems of Massachusetts and New York," based upon a personal tour of inspection lasting several weeks.

The Inspectors' and Trustees' Sections held a joint meeting for the discussion of topics arising out of Inspector Colles' paper, read before the Trustees' Department in 1906.

Inspectors W. H. G. Colles and W. I. Chisholm, M.A., of the Advisory Council, outlined the work of the Council to date.

A conference was held with Hon. Dr. Pyne and Dr. Seath at a joint session of the Inspectors' and Trustees' Departments on the subject of continuation class reorganization.

THURSDAY, APRIL 4th, 1907.

C. W. Mulloy, B.A., discussed the question: "Should the Public School Leaving Examination be Revived?"

Moved by D. Robb, seconded by J. E. Tom, that we recommend that a Public School Leaving Examination be held, as formerly, on the subjects of the Fifth Form course. Carried.

Inspectors Robb and Tom were authorized to present this resolution to the Trustees' Department for their consideration.

On motion of G. K. Mills, B.A., and J. C. Brown, a committee, consisting of Messrs. Silcox, Leake, Chisholm, Mills and Stevens, was appointed to act with a similar committee from the Public School Department to outline more definitely the work of the Junior and Senior classes of the different forms of the Public School.

C. B. Edwards, B.A., and L. A. Green, B.A., addressed the Inspectors on "The Status of the Public School Inspectors *re* the Professional Examination of Public School Teachers.

D. D. Moshier, B.A., and John McCool, gave suggestive addresses on "How to Improve our Teachers' Institutes."

On motion of J. H. Smith and T. W. Standing, B.A., the addresses of Messrs. Stevens, Mills, Hoag, T. A. Craig, Mulloy, Edwards, Green and Moshier were ordered to be printed in the Proceedings of the convention.

W. I. CHISHOLM, M.A., *Secretary*.

*MINUTES OF THE PUBLIC AND HIGH SCHOOL
TRUSTEES OF ONTARIO.*

FIRST SESSION.

TUESDAY, APRIL 2nd, 1907.

The twenty-first annual convention of the Public and High School Trustees of Ontario began at University College, Toronto, at 2 p.m.

After the registration of delegates the President, C. W. Kelly, Esq., took the chair.

In the absence of G. A. Aylesworth, Esq., Mr. A. Werner was appointed to act as Secretary *pro tem*.

Messrs. Williams and Coram were appointed to report to the press the daily proceedings.

The minutes of the proceedings of this department, 17th, 18th and 19th April, 1906, as printed in pamphlets, were taken as read, and on motion were adopted.

Mr. R. H. Jupp, of Orillia, and Mr. R. J. Corbett, of Mount Forest, were appointed auditors.

The following report of the Treasurer was read, received and referred to the auditors:

RECEIPTS.

April 17th—Balance (audit of date).....	\$16 04
“ 17 to 20—Delegates	173 25
“ 19—Legislative grant, per Treas. O. E. A.....	50 00
	<hr/>
	\$239 29

EXPENDITURE.

April 18—Paid Mr. Doan Ry. Certificate fees.....	\$19 75
“ —Paid Mr. Doan O. E. A. fees	50 00
“ Paid allowance Sec.-Treas., 1905-6	75 00
July 7—Paid W. Templeton, printing Proceedings, 1,000 copies, 63 pages at \$1.00	63 00
Jan. 5, '07—Paid W. Templeton, printing programmes	7 00
Distribution of pamphlets, letters, etc.....	16 00
Balance	8 54
	<hr/>
	\$239 29

GEO. ANSON AYLESWORTH, *Treasurer*.

Newburg, 19th January, 1907.

Two letters from the Secretary were received and the contents read to the meeting.

It was moved by Mr. John Anderson, and seconded by Rev. Mr. Wilkin, that the Executive Committee be appointed a committee to name the delegates to interview the Hon. the Minister of Education.

The communications from the Secretary were handed to a committee, composed of Messrs. Anderson, Todd, Buckingham and Rev. Wilkin to report thereon before the election of officers would take place.

The President, Mr. C. W. Kelly, representing the Guelph Board of Education, read his address (See page 351.)

The President's address was referred to a committee, consisting of Messrs. Rutherford, Jupp and Werner, who later reported as follows: The comprehensive view on educational matters as considered in the President's address, show that neither time nor labor was spared by him in the production of it. We fully appreciate his efforts and compliment him on the excellency of the same, and we recommend it to be printed in our Proceedings.

G. RUTHERFORD.

R. H. JUPP.

A. WERNER.

On motion the report of the committee was received and adopted.

Rev. Thomas G. Wallace, M.A., Oakville, read a paper on "Capital Outlay for Buildings and Equipment," etc. (See page 358.)

Messrs. R. W. Woodruffe, Woodstock; R. McKnight, Owen Sound; R. H. Jupp, Orillia, and G. Rutherford, Shelburne, addressed the meeting, dealing with various points in consideration.

A notice of motion by Mr. John Anderson that he will to-morrow move a resolution to amend the High School Acts, regulating the liability of the County Council to pay for County pupils.

A notice of motion by T. D'Arcy McGee, Ottawa, that the Trustees' Department of the Ontario Educational Association recommend to the Ontario Government that sub-section 1 of Sec. 32 of the Separate Schools Act, being R.S.O. 294, be amended by adding to the last line the following words: "And the expense of such election be borne by the said municipality," and, further, that Sec. 61, S.S. 1 of the Separate Schools Act, being R.S.O. 294,

be amended by striking out from said section all the words after the word "shall," in line 11 of said section, down to and exclusive of the word "continue" in line 12 of said section.

Notice of motion by G. S. Fowler: That the continuation class system, and its needs receive consideration.

Notice of motion by Rev. Wilkins: That, whereas, the Minister of Education has announced it to be the policy of the Government to defray 40 per cent. of the salary of rural school teachers above \$300, this department would urge upon him for reasons to be set forth, that the urban schools should have relatively at least similar assistance from the same source.

Notice of motion by Mr. S. T. Chown, Renfrew: That the Trustees' Department of the Ontario Educational Association request that the Government amend the High Schools Act so that counties be required to pay the same proportion or rental for the use of capital expenditure as they now pay for the cost of maintenance.

The session adjourned.

WEDNESDAY, APRIL 3rd, 1907.

The following report of the auditors was on motion received and adopted:

"We, your auditors, beg to report that we find, after examining receipts, and expenditures and vouchers for same, Treasurer's account to be correct.

"R. J. JUPP.

"R. J. CORBETT."

Toronto, April 3rd, 1907.

The following were elected officers for 1907-8:

President—L. K. Murton, Oshawa.

Vice-President—R. McKnight, Owen Sound.

Secretary-Treasurer—A. Werner, Elmira.

Representatives to the Advisory Council—John B. Dow, Whitby; J. H. Laughton, Parkhill.

Executive Committee—Mr. Parkinson, B. of E., Toronto; F. W. Wright, B. of E., St. Thomas; S. Truman, County Council, Victoria, Kirkfield; W. D. Euler, P.S., Berlin; C. Ramage, P.S., Durham; Dr. R. N. Horton, P.S., Brockville.

The committee to which the communications from the Secretary-Treasurer were referred to, report a minute there anent for insertion in our Proceedings respectfully suggest the following: This department heartily wishes Mr. Aylesworth success in the mission on which he has been sent to Britain in the public interests; is pleased to learn that fraternal relations have been established with the Trustees' Association of British Columbia; recognizes the zeal and fidelity with which Mr. Aylesworth has attended to the interests of the Ontario Educational Association, and this department in particular, during the many years he has served as its Secretary-Treasurer. Regrets greatly his absence from this meeting, but as he still continues his connection with the Trustees' Department of this Association, hopes he may long enjoy the benefit of his ripe experience and wise council.

W. E. BUCKINGHAM

JNO. DAVIDSON

A. C. TODD

WM. THOS. WILKINS

Mr. R. S. Neville, Toronto, read an excellent paper on "The Educational Beginnings." (See page 370.)

Moved by L. K. Murton, seconded by J. G. Elliott, that this department wish to express to Mr. Neville their thanks for the very excellent paper, and that it be published in our minutes. Carried.

The following motion was likewise carried, that this department request the Hon. the Minister of Education, to have the paper by Mr. Neville published and distributed through the Inspectors among the Public Schools.

Mr. A. C. Todd read an able paper on "Patriotism." (See page 383.)

On motion Mr. Todd's paper was received and ordered printed in the minutes.

On motion the paper read by Rev. Mr. Wallace was received, and the hearty thanks of this department given to Rev. Mr. Wallace for the same, and that the paper be printed *extenso* in the Proceedings of the Association.

A joint meeting of Inspectors and Trustees was held. Discussion of Inspector Colles' recommendation as to rural schools. (See minutes, 1906, page 34.)

As Teachers—

Clause 1. Approved.

Clause 2. Not considered (not sufficient time.)

Clause 3. Messrs. Somborby, Laughton, Stephens, Platt, Jupp, Chisholm and Elliott took up the various phases of the question under discussion, and on motion by Mr. Laughton, seconded by Mr. Moshier, that the following be added to Clause 3, "That persons receiving certificates from Normal Schools receive a grading," was carried.

Clause 4. Approved.

Curriculum—

Clause 2. That the words "that they are required to teach" be added to Clause 2.

Administration—

Clause 3 was considered. Messrs. Todd, Martin and Allison speaking on the subject, and the following motion was carried, "That the recommendations under consideration be adopted excepting the part thereof relating to the adoption of woman to the rural boards."

Mr. McCrae, of the O. A. C., addressed the meeting on the advantages of a training at the school to the teachers of rural schools, and upon motion by Mr. McCready, seconded by Mr. Laughton, the following resolution was passed, "That it is considered advisable that the Education Department consider making arrangements for securing for rural school training for the teachers at the Agricultural College."

The following gentlemen were appointed a committee to interview the Minister of Education: Messrs. Murton, Kent, Elliot, Dow and Laughton.

The meeting adjourned.

WEDNESDAY AFTERNOON.

The Executive Committee of the Trustees' Department recommend that Mr. John Anderson, Arthur, be appointed director of this department; also recommend that Mr. Geo. Anson Aylesworth be made a life member of the Trustees' Department, for valuable services rendered the Association. We recommend that the Secretary be paid the sum of \$75 per year, and that the Secretary *pro tem.* be paid the sum of \$15, which was adopted by the meeting.

A paper on "Technical Education" was given by D. J. Goggin, D.C.L.

Moved by Mr. Fowler, seconded by J. E. Farewell, that this meeting extends a hearty vote of thanks on his most excellent paper, and that it be incorporated in our minutes. Carried.

A joint meeting of Inspectors and Trustees was held to consider the circular letter sent out by the department on Continuation class work.

Dr. Seath and the Hon. the Minister of Education were present at the session.

Inspector McKee, of South Renfrew, addressed the meeting, advocating the continuation work in schools, and the benefit derived therefrom.

Motion by D. D. Moshier, seconded by J. A. Gamble, that the suggestions before us *re* continuation schools be approved, modified by grant to the Public Schools for satisfactory 5th class work. Carried.

The following amendment to the motion was laid before the meeting. Moved by Inspector Browne, seconded by Inspector J. A. Smith, that it is a recommendation of the joint meeting of Trustees and Inspectors that the grades of continuation classes be confined to grades A and B, and that in all other schools the attendance of 5th Form pupils be encouraged by an average attendance grant.

Inspector McIntosh, North Hastings, wished grants to be extended to 5th Form.

Inspector Smith from Wentworth spoke in favor of grant to 5th Form.

Rev. Mr. Roberts, of Niagara, and Rev. Mr. Wilkin, Trenton, solicited more information as to the various grades, and how the changes would effect the schools. Inspector Cowley, Ottawa, then addressed the meeting, giving a full report of the changes as considered in grade A and B and C and D. Messrs. Jackson, Elgin County; Carlyle, of Oxford; Allison, of Waterdown, addressed the meeting, and the following amendment to the amendment was laid before the meeting: Moved by G. Rutherford, seconded by C. Ramage, that whereas grades B and C do practically the same work, that the grant to them therefore be uniform and per capita, but that as grade A is teaching the languages and science the same as in High Schools that the same grant per capita be paid to them as High Schools of the lower grade. Inspectors Craig, of Wellington, and Colles, of Kent, recommended that no change

which would effect the present condition be made, and would not recommend removing any grants now in force.

Mr. Laughton advocated the advantage accruing to the pupils, who would benefit by a lengthened time of attendance in the Public School, and would otherwise not receive any education after having passed Entrance.

Mr. Moshier recommended that the specialization be removed, and that we have only continuation classes and 5th Form classes. Mr. Rutherford spoke in favor of continuing to do the work wherever it was found practicable, and let the Government materially assist such schools.

Upon a vote being taken the amendment to the amendment carried, and upon a final vote the original motion carried.

The Hon. the Minister of Education then addressed the meeting, expressing his pleasure at being present during the discussion, and spoke in reference to his work being carried on with the assistance of the General Association, and the benefits resulting from such meetings.

THURSDAY, APRIL 4th, 1907.

The following motion was carried: Moved by J. R. Stanley, seconded by G. Rutherford, that, whereas, the burden of common school education is much greater in urban than in rural municipalities,

And, whereas, all the capital outlay, and the major portion of the cost of maintenance of High School and Collegiate Institute is borne by the urban municipalities, and,

Whereas, the Government has already granted substantial aid to rural municipalities, the trustees request the delegation that will wait upon the Government to strongly urge the claims of the urban schools to a more equitable grant than it at present gives.

Mr. J. H. Laughton gave a brief description of the work done by the Advisory Board.

Rev. Mr. Wilkin withdrew his notice of motion.

Notice of motion by Mr. Chown. The motion was carried.

An able paper was read by Mr. E. R. Bollart—"The School and the Home."

On motion a very hearty vote of thanks was extended to Mr. E. R. Bollart on his paper and it was ordered to be printed in the Proceedings.

Mrs. Hoodless addressed the meeting, taking the question of "Deportment" for her subject. She received an expression of thanks from the meeting, and some of the members expressed themselves in sympathy with Mrs. Hoodless *re* the want of deportment, and Mrs. Hoodless was granted the privilege of taking a part in the 1908 programme.

Mr. Horton, Brockville, sought information on manual training and domestic science classes in schools. Mr. Elliot, of Kingston, replied to the question.

Mr. J. E. Farewell, of Whitby, spoke on the matter of deportment as existing on the continent.

J. B. Dow, B.A., addressed the meeting on "The State in Relation to University Education," and referred to the harmony existing in Ontario between all the departments of Education and our Universities, the advantage to the country in having as many as possible take advantage of the opportunity, the high standard of our Universities to be maintained, and the position that Ontario graduates take in the upbuilding of our country. Mr. Dow's address was listened to very attentively. Mr. Parkinson moved, seconded by Mr. Anderson, that this meeting thank Mr. Dow for his able address.

Dr. Waugh, who was present, was asked to address the meeting but declined, thanking them for the invitation, and expressing his willingness to do so some other time.

The following motion was passed after considerable discussion: Moved by John Anderson, seconded by S. F. Chown, that where the costs of the maintenance of county pupils at any High School exceeds the legislative grant apportioned by the Minister of Education, and the equivalent the county grant, the county share be liable for the maintenance of the county pupils in proportion with the average attendance of the county pupils enrolled at such High School preceding to the average attendance of all the pupils enrolled at the said School for the said period of three years and schools give the county credit only for the amount received as fees (if any) from county pupils as payment on account of such maintenance, and that the Trustee Department petition the Minister of Education to make such amendment to the High School Act as will give effect to this resolution.

A motion was carried relative to the publication of the paper called *The Trustee*. It was moved by Mr. Taylor, and seconded

by Mr. Laughton, who recommended that the suggestion be made by the Committee to interview the Minister that some measure should be taken to introduce the paper to School Boards. All Trustee Boards should have a copy for general information.

The following resolutions were moved by T. D. McGee, and seconded by Mr. Belanger, that the Trustee Department of the Ontario Educational Association recommend that Sec. 32, subsection 1, of Separate Schools Act, being R.S.O. 294, be amended by adding the following words, "And at the same time and place and under the same officials," after the word "day," on the second last line of said section, and that Sec. 61 of the Separate Schools Act, being R.S.O. 294, be amended by striking out all words after the word "shall" in the eleventh line down to and exclusive of the word "continue" in the twelfth line.

Notice of motion. That what appears to be an omission in the Truancy Act respecting the appointment of an Inspector of private schools be considered and amended, it was moved by J. G. Elliott, seconded by Mr. Hodgins, that the matter of consideration of Inspector of Private Schools be referred to a committee, consisting of Messrs. L. K. Minton, J. E. Farewell and J. B. Dow, and to report at our next meeting.

The following resolution was moved by J. H. Knight, seconded by W. H. Stewart, and carried, that County Councils be required to give at least an equivalent to the Government grant as at present.

The following resolution was lost: That in opinion of the Trustees' Department the Government grant should be largely increased to continuation schools employing two to three teachers whose time is entirely devoted to continuation work.

The following resolution was laid over: That we recommend that a Public School Leaving Examination on the subjects of the 5th Form course be held each year under the direction of the Education Department at the same time and places as the High School Entrance.

Notice of motion given by Mr. J. H. Laughton. That the Executive be increased to nine members, four of which shall be representatives of Rural Schools.

The following resolution was passed, That three copies of the Proceedings of this Department be sent to each Board of Trustees of the Province, providing the Government grant the necessary funds.

The President was asked to leave the chair, which was taken by Mr. L. K. Murton.

Mr. Murton put the following resolution before the meeting, and was carried by a standing vote. It was moved by J. G. Elliot, seconded by Col. Farewell, that this Department desires to record its appreciation of the admirable services rendered by the President, C. W. Kelly, Guelph, during his term of office. The excellence of the programme provided, the courtesy and consideration in conducting the sessions, and the generally genial and happy disposition manifested meets our admiration and approval.

The President replied, saying that he feels delighted that he has been able during his term of office to maintain and uphold the high standing of the Trustees Department of the Ontario Educational Association.

All joined in singing, "God Save the King."

MINUTES OF THE HOME SCIENCE SECTION.

WEDNESDAY, APRIL 3rd, 1907

The fourth annual meeting of the Home Science Section was held in the Senate Chamber of Toronto University at 10 a.m. Miss Watson in the chair.

The session opened with an address from the President, in which she gave a brief outline of Home Science work in Ontario. This has grown remarkably during the last five years, over sixty teachers being employed at the present time. The need for greater unity in the work was emphasized, and its extension to villages and rural schools.

Miss Miles was appointed press reporter.

Misses Doane and Neville were appointed auditors.

The Secretary-Treasurer read the minutes and financial report of the previous year. Both were adopted.

The Round Table Conference followed, and the following topics were discussed: The teaching of balanced meals, the teaching of sewing, the value of practical examinations, and the wearing of a uniform in the kitchen.

It was moved by Miss Doane, and seconded by Miss Neville, that Misses Watson, Laird and Marshall form a committee to

arrange for printing and distributing of the questions and answers suggested by this conference. Carried.

Adjournment at 12 noon.

In the afternoon a joint meeting was held with the Hygiene Section in the Medical Building. Dr. Sheard opened the session by a very interesting lecture on "The Germ Theory of Disease, Disinfection and Disinfectants."

Dr. Clark, of the Provincial Asylum, followed with a paper on "Dementia Præcox." Both papers showed how important the work of the teacher is, and the value of a knowledge of sanitation and hygiene.

Dr. Oldright drew attention to the necessity for better ventilation in schools, statistics showing that a large percentage of female teachers die from tuberculosis.

The Home Science Section then adjourned to meet later at a tea given by the President and Past Presidents of the Section.

THURSDAY, APRIL 4th, 1907.

The meeting opened with a paper by Miss Benson on "New Books." "The Physiology of Digestion," by E. H. Starling, and "The Science of Nutrition," by Dr. Lusk were reviewed, and several other valuable books were mentioned.

Miss Eadie's report on "The Lake Placid Conference" followed, giving an account of some of the most interesting papers read at this gathering.

The election of officers resulted as follows:

<i>Honorary President,</i>	Mrs. Hoodless
<i>President,</i>	Miss MacPherson
<i>Vice-President,</i>	Miss A. L. Laird
<i>Secretary-Treasurer,</i>	Miss J. A. Doane
<i>Councillors,</i>	Misses Eadie, Greenwood, Strong, Roddick, Ewing, McVannel.

A hearty vote of thanks was tendered to Miss Marshall for her very efficient work while Secretary, and to Miss Watson for the excellent work accomplished while President.

In the afternoon a joint meeting was held with the Manual Arts Section, when Mr. A. E. Winship, of Boston, addressed the members on the subject of "Arrested Development."

The Section adjourned.

MINUTES OF THE HYGIENE SECTION.

The annual meeting was held in the Medical Building of the University on Wednesday, April 3rd.

At a joint meeting of the Hygiene Section with the Home Science Section, Dr. Chas. Sheard gave an address on "The Germ Theory of Disease, Disinfection and Disinfectants," and at the same joint meeting, Dr. C. K. Clarke read a paper on "Dementia Præcox."

The regular meeting of the Section was held immediately afterwards, and was opened by the President, Professor A. P. Knight, who gave the annual Presidential Address on the subject, "School Hygiene."

The business meeting followed.

It was moved by Dr. Helen MacMurchy, and seconded by Dr. J. F. Goodchild, that we proceed to appoint delegates to the Second International Congress on School Hygiene, to be held in London from the 5th to the 8th of August this year, and to arrange to have the General Association endorse our action, and send our delegates as their delegates. The motion was carried.

The following delegates were appointed: Dr. Wm. Oldright, Dr. H. MacMurchy, Mrs. James Hughes, Dr. Hodgetts, Miss Nainby and Dr. J. F. Goodchild.

It was moved and seconded, that Dr. Chas. A. Hodgetts, as representing the Hygiene Section, be appointed to interview the Hon. Dr. R. A. Pyne, the Minister of Education, regarding the matter of exhibiting certain Ontario school articles and photographs at the exhibit of the Royal Sanitary Institute in London in August next. The motion was carried. Dr. Hodgetts was asked to advise the exhibit of such articles and photographs as he might think proper.

It was moved and seconded, that the names of the President, Dr. Knight, and Secretary-Treasurer, Dr. Goodchild, stand until next year. The following officers were nominated and elected as members of the Executive:

Principal Wm. Scott, Dr. H. MacMurchy, Mrs. A. Huestis, Principal Auden, Dr. Chas. Hastings, Dr. W. H. Peplar, Miss Nainby, Dr. Chas. A. Hodgetts, Dr. Wm. Macdonald, with Dr. Wm. Oldright as Chairman.

MINUTES OF THE MANUAL ARTS SECTION.

TUESDAY, APRIL 2nd, 1907.

The Manual Arts Section of the Ontario Educational Association met in Room 3 of Toronto University, the President, Mr. Sugden Pickles, London, in the chair.

The minutes of the meetings of 1906 having been printed in the Annual Proceedings, were taken as read and adopted.

The Secretary made explanations relative to the exhibition of work from the various towns and cities of Ontario.

A communication from Mr. C. F. Errett, Brantford, was read, in which he stated his reasons for declining to act as Councillor for 1906-07.

The Secretary was instructed to act as press reporter. The President then began his address to the Section.

At eleven o'clock, the President announced that as he wished to adhere as closely as possible to the printed programme, he would resume his address later, and called on Miss A. Powell, of London, for her paper on "Applied Design."

Miss Powell's paper proved of great interest and value. It was illustrated by a number of articles made and decorated by pupils of London.

Messrs. Errett, Pickles, Rostance, Snider and others took part in the discussion which followed.

On motion of the Secretary, seconded by Mr. Jas. H. Wilkinson, it was decided to incorporate Miss Powell's paper in the volume of the Annual Proceedings.

The Secretary announced that Mr. C. J. Atkinson, who was scheduled to give his address on "Industrial Education" on Wednesday morning, had to leave the city Tuesday afternoon at five o'clock.

It was decided to hear Mr. Atkinson at three o'clock, Tuesday.

The Section adjourned for noon recess.

AFTERNOON.

At two o'clock the Section was called to order to hear Mr. A. J. Painter, of Guelph Consolidated School, on "Work with Copper." The address was illustrated with many fine specimens of work.

After discussion, it was moved by Mr. J. H. Wilkinson, seconded by Mr. W. W. Snider, that Mr. Painter's paper be included in the Annual Proceedings.—Carried.

Mr. C. J. Atkinson delivered an address on the work of Broadview Boys' Institute.

This lecture was of exceeding interest, and cleverly showed what may be accomplished with boys by an enthusiastic and energetic man who has wisely adapted his plans to local conditions and problems. Mr. Atkinson was accorded the hearty thanks of the Section for his interesting address.

The Section adjourned.

WEDNESDAY, APRIL 3RD.

The Chairman called the Section to order at eleven o'clock. The minutes of Tuesday's meetings were read, and on motion of Mr. Jas. H. Wilkinson, seconded by Mr. A. J. Rostance, were declared approved.

The President requested Messrs. Lucas and Hamilton to act as press reporters for the day.

It was moved by Mr. Wilkinson, seconded by Mr. Hamilton, and agreed that the Exhibits of work be repacked on Thursday afternoon.

The Secretary made announcements re fees, railway certificates, and Summer Schools in Broadley Polytechnic Institute, Peoria, Ill., and in New York University.

Miss F. M. King addressed the Section on "Primary Communal Work."

Mr. A. J. Rostance read a paper on "Communal Work in Shops." Both speakers had pupils' work as illustrations, and detailed interesting experiences in connection with co-operative projects. After discussion it was decided that both papers be included in the Annual Proceedings.

The Section adjourned for noon recess.

AFTERNOON.

At 2.30, Mr. S. J. Keys read a paper on "What Manual Training Will do for Pupils." Mr. Keys gave a very careful analysis of the value of educational hand-work in the elementary classes.

Messrs. Pickles, Painter, Houston, Hamilton, and others discussed several features of Mr. Keys' paper, and on motion of Mr. Painter, seconded by Mr. Houston, it was decided to have the paper published in the Annual Proceedings.

The election of officers resulted as follows :

<i>Honorary President,</i>	-	A. H. Leake.
<i>President,</i>	-	W. L. Richardson.
<i>Vice-President,</i>	-	Miss A. Powell.
<i>Secretary-Treasurer,</i>	-	D. W. Houston, Berlin.
<i>Councillors,</i>	-	A. J. Painter, J. S. Mercer, W. A. Adams, G. A. Lucas and F. Tanton.

It was decided that the President-elect name five members to act with the officers as an Executive Committee.

It was moved by Mr. Brennan, seconded by Mr. Rostance, that the President represent the section on the Board of Directors of the Ontario Educational Association. Carried.

It was moved by Mr. Rostance, seconded by Mr. Mercer, that in case it is unconstitutional for the President to represent the Section on the Board of Directors, the Section shall pay the Secretary's travelling expenses in attending Board meetings. Carried.

Moved by Mr. Lucas, seconded by Mr. Wilkinson, that the Section meet three half days in 1908, at times to be chosen by the Executive Committee. Carried.

The Section adjourned.

THURSDAY, APRIL 4TH.

The Manual Arts Section was called to order at two o'clock.

After a few introductory remarks, the President introduced the speaker of the afternoon, Dr. A. E. Winship, of Boston, who addressed the Section on "Arrested Development." The lecture

was much enjoyed, and on motion by Mr. Leake, seconded by Mr. Houston, the hearty thanks of the Section was accorded Dr. Winship for his interesting, helpful, and scholarly address.

The minutes of Wednesday's sessions were read and approved.

The Secretary-Treasurer presented the financial statement for the year, showing a balance on hand of \$15.06.

The President asked Messrs. Rostance and Wilkinson to act as auditors. The Auditors examined the accounts and statement, and reported the latter correct.

After discussion as to ways and means of producing a still better programme and exhibit of work for 1908, the Section declared its gratification for the successful work of the retiring officers and committee, and adjourned.

S. PICKLES, *President.*

W. L. RICHARDSON, *Sec.-Treas.*

FINANCIAL STATEMENT

OF

The Ontario Educational Association

1906-07

RECEIPTS—

Balance from last year	\$143 90
Membership Fees	421 00
Government Grant	1,000 00
Sale of Proceedings	26 56
Advertisements in the Proceedings and Programme ..	183 00
	<hr/>
	\$1,774 46

PAYMENTS—

Expenses of Convention	\$31 50
Printing Circulars, Programmes, etc.....	120 15
Secretaries of Departments	60 00
Postage, Mailing, etc.	58 12
Printing and Binding Proceedings.....	796 00
Railway Fare, Board of Directors	27 80
Dr. Fletcher's Expenses (Lecturer)	17 40
Trustees' Department, for Printing, etc.	50 00
Expenses of Superannuation Committee	30 76
Salary, General Secretary.....	125 00
Salary, Treasurer	30 00
Reporting Evening Meeting.....	39 00
Balance on hand.....	388 73
	<hr/>
	\$1,774 46

ROBERT W. DOAN,
Secretary.

W. J. HENDRY,
Treasurer.

We, the undersigned Auditors, have examined the books, vouchers, orders and financial summary of the Treasurer of the O. E. A., Mr. W. J. Hendry, and found them correct in every particular, with a balance of \$388.73 on hand.

We also beg leave to commend the orderly and systematic manner in which the books have been kept, and to express our appreciation thereof.

J. H. CAMFRON.
E. T. YOUNG.

GENERAL ASSOCIATION.

PRESIDENT'S ADDRESS—THE NEEDS OF OUR SCHOOLS.

W. SCOTT, B.A.

Permit me to thank you for the honor you conferred upon me in electing me to the highest position at your disposal, and especially to thank the Department, which, in the unwritten custom that has come to be recognized as governing elections to the Presidency of this Association, presented me as their nominee—the Kindergarten Department. I need not say how pleased I am to be called upon to preside over the deliberations of an institution of such growing influence as the Ontario Educational Association. Since I have known it, this body has had influence, less or more, in moulding the regulations and shaping the statutes governing the schools of this Province; but of late, its rapidly growing numbers and the greater breadth of its discussions are so affecting public opinion that it is rapidly coming to be recognized as the parliament of the teachers of Ontario.

In undertaking to speak to you for a few minutes this evening, I desire to say a few things concerning the efficiency of our schools. Every Department, every Section is meeting, I venture to say, with the sole purpose of rendering the work of that Department or Section, no matter where the laborer may be, more effective. It is the same purpose that is impelling our government and legislators to make those changes in our educational machinery and laws, the outcome of which we are all watching with interest, if not with anxiety.

It is a well recognized principle, that the efficiency of every system, whether commercial or educational, depends upon those who manage it. The success of any school system must ultimately depend upon those who give effect to syllabi and regulations—the teachers.

What is an efficient teacher? How is his efficiency to be

judged? There is, there can be, no other standard than that which is applied to every other natural power, physical or spiritual, viz., the effects produced. Only a few years ago, in Ontario, the standard of efficiency was determined by the number of students who could be successfully passed through the prescribed course of study, no matter what the resulting effect upon the pupil might be. A remnant of this mode of judging the efficiency still lingers in parts of the Province; but to-day, in many parts, it is believed, that the standard has been raised from this mechanical one into a far higher and more difficult arena, in which mind working upon mind and through the spiritual power thus exerted, kindles and inspires the pupil. Inspiration transforms and vitalizes all other powers; it kindles intellectual and moral enthusiasm; it induces the pupil to lay hold on the higher purposes of education, and it thus becomes the power whereby the teacher engenders a robust moral character in his pupils. Whereas, the old grind, which was essential to meet the requirements of the examiner, often left the student stranded on the rocks of disgust for school and school work; and when he felt that he had passed a successful examination, his attitude to the subject was one of "thank God I am through with that subject." Hence it is that to-day among the progressive teachers and thoughtful school boards so much less is heard of passing candidates at examinations, and so much more of drawing out the best in the developing girls and boys, so that worthy womanhood and manhood are the results.

When it is borne in mind that the money expended by the State on education is an investment to be repaid many times over, when the pupils graduate into the world of life, and when it is taken into consideration that the more perfect the present investment, the more secure the present bonds are, the more likelihood there is of the expected return in the immediate future, and when it is remembered that after all that may be said or done, the efficiency of any system rests upon those who are at the outposts of duty, the teachers, it is easily realized why at the present time strenuous efforts are being put forth in Ontario to raise the standard of both primary and secondary teachers.

The great work of a teacher, as it appears to me, is to kindle fires of enthusiasm in the minds of his pupils, to ring the awakening bell in the dormitory of their souls, not merely to impart information. Now for real teaching, the teaching that moulds char-

acter and inspires intellectual and moral excellence, the teaching that makes a boy or girl sit up and determine to excel as never before, there is nothing that can be substituted for generous scholarship. It is scholarship, when joined to right personality, which gives its possessor that intangible and undefinable influence which is felt rather than seen, but which manifests itself in the earnest work and co-operative activity of pupils in educating themselves. All the great teachers, whether a Socrates at Athens, an Epictetus at Rome, a Herbart in Germany, an Arnold at Rugby, a Wendell Holmes at Harvard, or a George Paxton Young at Toronto, inspired their pupils with the idea that they had mastered the subject which they taught. Scholarship is power, and skill and efficiency itself all gathered into one personality. There is no royal road to this scholarship. Time, labor, and self-denial are the price each must pay for this foremost characteristic of the genuine teacher. "The Gods have put sweat in the pathway to excellence." Hence, whatever changes are made, it may be confidently asserted that there will be no lowering the standard of excellence but rather a determined effort to raise still higher the intellectual and moral scale of efficiency.

At the present time, with the discussion over Manual Training, Nature Study, Art, etc., is there not danger of losing sight of the necessity of having the right kind of teacher, and are not school boards satisfied if they can secure a teacher of any sort, forgetting how true Emerson's remark about his daughter's education is yet, that "he did not care what she was taught, but it did matter who taught her."

Now, if the success of a school system depends upon the teachers, the problem for school authorities to-day is how to provide and prepare such teachers, especially for rural schools. To predispose persons of good ability to enter on the teaching profession will require greater inducements than can, even yet, be held out. The reasons for this are not difficult to find.

Within the last thirty or thirty-five years, wonderful changes have taken place in the rural parts of Ontario. The farmer no longer clothes himself in home-made full cloth; he no longer drives about in a lumbering wagon or at best a democrat; he has machinery to do the heavy work about his farm, even to the mowing of his hay and the cleaning of his stables; he no longer seeks the bank, the bank seeks him. There are many vacant houses

formerly occupied by the hired men and their families, hence, the school population has fallen off to an alarming degree; there are many more ways of money-making than merely raising wheat and barley. In such a community the well dressed, well informed teacher was easily first. He was the leader in social affairs, sought after, honored, a power in the section. Now the farmer and his woman kind in the section dress as well as the teacher, if not better, and when he mounts into a covered carriage with rubber-tired wheels, behind a high-stepping horse, the teacher, perforce, has to take an inferior place.

Formerly the teacher who received no more salary than his fellow does now, owing to its greater purchasing power, was able to take a stand in the community that one who receives even more in actual money cannot do to-day, for it is an acknowledged fact that a dollar is worth to the professional man only two-thirds of what it was worth in the seventies. Hence teachers to-day should receive salaries at least one-half greater than those of thirty years ago to be as well paid. Then, in those days, it was much easier to become a teacher than it is to-day. The first outlay was far less. Teachers often received their academic training at their own schools. They were not expected to betake themselves to some secondary school as soon as they were ready for promotion from Form IV. of the primary schools. Then the advancement in the social standards of living during recent years, owing to the great and general prosperity of the Dominion at large, has operated to compel teachers to undertake greater expenditure in the way of dress and general social requirements. The social sphere in which teachers are expected to move, and in which they must move to retain their influence, requires that they must be governed in their expenditure to some extent by the example of those whose incomes are in most cases far in excess of theirs. Hence, to-day, with a far greater initial expenditure of both time and money, and a subsequent larger expenditure than was exacted from their fellows of twenty-five or thirty years ago, the pecuniary inducements are not nearly equal to what they formerly were, and certainly the social conditions have been revolutionized to the disadvantage of the teacher.

But rural school boards say that the schools are not as large as formerly, and measuring the work of teaching by the same standards as they apply to manual work, such as they are acens-

tomed to, rebel against what they consider the absurdity of paying a teacher who has a school of only twenty pupils the same salary as was formerly paid to one who taught forty in that section. Is the fault of the diminished number that of the teacher that he should be punished? Does it require less preparation to fit one to teach twenty than to teach forty? Can one who teaches twenty afford to dress in cheaper clothing than one who teaches forty? Will the same farmer who objects to pay as formerly, board this teacher at a reduced rate because he has only twenty to teach instead of forty? Should the twenty receive an inferior school education to the forty, and hence any kind of teacher will do? Surely the whole situation is so absurd that even a passing thought given to it will convince rural trustees that if they desire to induce teachers to enter the profession and remain in it, they must do something to restore them to their old position, socially and financially; and while salary is not everything that causes one to carry himself well in a community, yet to be well remunerated has a wonderful effect in stiffening the backbones of most men and women.

Then another serious change has taken place requiring more skill and better preparation than formerly. I refer to the fact that the community, especially in towns and cities, is forced to look to teachers as the main factor in moulding the character of children. Formerly the home had far greater influence in this respect than now. The present economic conditions are such that the training which boys and girls receive is drifting more and more into the hands of teachers. In cities there is little home life worthy of the name for many, hence on the teachers falls the finding of a solution of the problem of increasing child immorality.

Another change, this one of an economic nature, has passed over rural Ontario during the past twenty-five or thirty years. Formerly the boy and girl on the farm received their industrial education at home. The girl assisted at the family sewing and housework; the boy built fences and repaired machines. The home was a real industrial educational centre. The child put brains into his handiwork, and thus that part of the brain which is developed only by bodily activity was trained. Homes are no longer places where many of the necessities of life are made as they once were. As society becomes more and more complex, the range of work of any one man tends to become narrower and nar-

power until the specializations of to-day are found. Now, if the best education is that which best trains a man to fill his place in the world's workshop; if the best system of education is that which makes citizens honest, happy, contented and industrious; if modern needs require that the plain, common people receive an education to fit them for their walks in life; if common sense dictates that people should be taught such things as they need and can comprehend; and if these are among the things they will do every day, does it not become self-evident that it is time to change our present mode of training and teaching, and adopt a system suitable to conditions as they exist in our province to-day? Such a training as is given by constructive work, school gardening, and household economies, is good for both the person whose labor is chiefly manual, for it enlists the brain in that labor, and for the person whose labor is chiefly intellectual, for it gives him a better developed brain to work with. To be conversant with things, to think clearly, to draw correct inferences, to be able to adapt oneself to changing conditions, not to be nonplussed by unusual circumstances, constitute the best equipment for every one, whether destined for the counting-house or the farm. Here, again, is another demand for a higher and more thorough preparation from our teachers, and for which school boards should be prepared to pay.

When the increasing difficulty of obtaining a certificate of qualification and the greater initial outlay necessitated thereby are considered, and when the inferior position both socially and financially which the teacher must now take is apprehended, can it be a matter of surprise that so few men are entering the profession, and is it to be wondered at that they are deserting from the ranks and women are migrating by hundreds to the North-West? Is it surprising that some of those now in the profession are said to lack ambition and do not embrace opportunities of professional improvement? That teachers are as good as they are under these circumstances, proves them to be a long-suffering, self-sacrificing body of generous-hearted men and women.

In addition to having school boards pay more liberal salaries than is now done, the Provincial government must be induced to move in the matter of providing a fair but generous superannuation allowance for retiring those who have grown old and have worn themselves out in the work of teaching. This would

be merely to follow the example of such countries as Germany and France where there is now no difficulty in retaining the services of a sufficient number of men to make the elementary schools efficient. What better service can be given to a country than that of inspiring to worthy womanhood and manhood. Is such devotion to duty not true patriotism? There are many unselfish men who do not seek for riches, but they do wish to be above want, especially do they wish to feel that they will never be a burden either to their friends or to the community when their day of work is done. Such could be induced to enter the profession and give their best service to it, provided they are assured of such a retiring allowance as is to be secured by the scheme which is now before the Government. Hence, I suggest that you most respectfully, but at the same time most urgently, press that Government to take up this or some similar scheme of superannuation. In many ways it has shown its willingness to aid the Public Schools, especially the rural ones, but there can be no better way of doing this than by retaining the services of mature, experienced teachers. The average man would be content to labor and to wait when he was assured of a competence on his retirement at sixty or sixty-five. This would do more to retain men in the profession than a larger salary, for no salary can be paid large enough, for a teacher unaided to lay by a sufficient sum on which to live after his retirement.

Then again, that men may be predisposed to become teachers, get married and still remain teaching, some scheme of inducing school boards to provide residences with suitable gardens should be prepared.

It may be only a dream of mine, but such a generous provision for teachers would induce men to fit themselves for their great work. They would be content to live in the country, care for their gardens and teach their schools. The result would be that the example set by this esteemed and honored man, would in many instances, correct the craze that is now abroad of rushing to the city. Thus one of the most serious problems with which this and other countries are now confronted would be practically solved. In addition to the example set, the teacher would create country ideals in his school. He would cease to extol the city; he would cease to talk of captains of industry and would extol captains of fields and live-stock; the ideal occupa-

tions would become those of the farmer, the fruit-grower, the stock-raiser. The example set by his living in his quiet cottage surrounded by its garden and shrubbery would turn the ambitions of the boys and girls from city attractions with their rush and noise, to rural life and occupations with their peacefulness and contentment. Agriculture and horticulture, illustrated by his example, an appreciation of the true worth of life upon a well-managed and well-equipped farm, would find a place in his school curriculum. Thus, teachers of rural schools would do much to make the ideals of the school-room rural in their nature and rescue many a boy and girl from a life of oblivious inefficiency in the town or city.

Then this ideal school would of necessity be free from the evils with which graded schools have to contend. I refer to over-teaching. If there is any canker-worm sapping the very foundations of our work; if there is any vampire sucking the life-blood from our primary school work in towns and cities, it is over-teaching, which reduces the pupil to a kind of helpless idiocy. In rural schools, pupils must work out their own salvation. There is no time for coddling. However, I believe that the work in rural schools should be so extended that pupils would not consider that their course of study was completed when they had passed the entrance examination. In this respect has not this examination wrought untold mischief upon the rural schools? Both pupil and teacher have come to believe that there should be a change in the arena of work when this goal has been reached. Thirty or forty years ago this was not the case. The older members here to-night taught the young people of the section, perhaps not so well as is done now in our high schools, yet in such a way that many of them continued to attend school when possible, if only for a few months each year.

Did I not occupy the position I do, I would say something about the force of example and the influence which the Government can yield by setting the province a model in its treatment of the inspectors and teachers it employs. Is it not inevitable that while the salaries paid by the Government to men who are regarded as being at the head of their profession remain at their present low standard, that school boards will be slow to realize their duty and responsibility to the teachers they employ. To

their credit, be it said, so far as the teachers are concerned, the present Government is moving in the right direction.

Then, having set the province an example of just and generous treatment of the inspectors and teachers that it controls, would the Government not be doing a wise action and rendering a great service to the country and the cause of public education by setting about systematically, as Dr. Ryerson did in his day, to educate the people along the lines indicated in this paper until they come to believe that it is neither wise economy nor morally right, in the interest of the child, to maintain a rate of salaries for teachers that is insufficient to attract desirable men, and women, and quite inadequate to maintain them in their proper sphere. That the public need education in this respect is, it seems to me, self-evident, for I can explain in no other way the many finical objections to the praiseworthy attempt of last year to increase the salaries of rural teachers to a living wage than through ignorance of the benefits which would accrue from a better paid profession.

In conclusion, when the essential qualifications of a successful teacher are considered; a sound physical constitution, the embodiment of what his pupil should be, physically, morally, and intellectually; a broad basis of sound scholarship to kindle the vital spark that sets on fire the craving mind of the child; the possession of a mind which, although long past the Oslerizing age, is still growing, for in this as in other fields example is mightier than any precepts, and the teacher who is laboring for the growth of others and allows his own mind to lie fallow, is taking the surest means of defeating his own purpose; a knowledge of, and some practical acquaintance with the conditions of the world around him, so that the schools for the masses shall provide such an education that the opportunities of all to make a living and to lead happy and prosperous lives shall be equal as far as school education can make them; such a knowledge of child nature as will enable him to interpret the workings of the child-mind as manifested by his words, his actions and his facial expression; as will cause him to note manifestations of perception, of retentiveness, of power to form mental images, of power to judge and reason, of capacity to give attention, of the pathological states of mind wandering and brain fatigue, and thus enable him to adapt his teaching to the

present condition of his pupils and to cure mental defects; a personality to produce the two great essential conditions of successful teaching, viz., that the pupil must, at all hazards, be interested in his lessons, and that he should be at ease with his teacher. When it is borne in mind that these qualities and accomplishments are required from the successful teacher, and that in return he is paid, in many cases, less than the scavengers of the streets of Toronto and that in the commercial world these qualities command many times this remuneration, is it any wonder that men are deserting and women migrating? Is not the wonder that so many self-devoted, self-sacrificing men and women as there are, can be found to enter on what should be the noblest of professions?

EDUCATIONAL ADMINISTRATION.

A. H. U. COLQUHOUN.

Mr. Chairman, Ladies and Gentlemen,—This is the first occasion upon which I have had the pleasure of addressing this association, and I appreciate the honor that your committee did me in asking me to attend, and take part in your programme; and although I am suffering from a somewhat heavy cold, I felt that nothing so trifling as a mere cold should keep me from coming to this meeting to-night. To be quite candid with you, I face an audience composed so largely of the teaching profession, with some degree of trepidation. Whatever outward appearances may seem to indicate I am not without serious inward misgivings, because for many years I have been aware of the importance of this Association. I know something of its vitality and its influence, and I regard it as a somewhat formidable body to address upon an occasion of this kind. Your honor roll of Presidents, stretching back so many years, includes some of the leading names in our educational history, and I am particularly glad to find in the Presidential chair this year a friend of my own, a conspicuous teacher in this Province, a man concerning whose character and talents I have, like yourselves, formed a high opinion. I congratulate Principal Scott, whose masterly grasp of the educational situation we have just heard, and I congratulate you upon this fine gathering: a gathering of which any of our professions would be proud, and I trust as the years go on you will exercise what has been rightly termed the functions of a Teachers' Parliament. You may rest assured that you have the cordial sympathy and support of the Minister of Education and of his Deputy. If, within the four corners of your constitution, there is some provision by which an unfortunate, but well-meaning outcast, who has never been either a teacher or a trustee, a person who is not anxious to linger any longer on the outer fringe of professional respectability if you have a provision which will enable me to join this Association, I trust you will invoke the provision and enroll me as an active member.

The subject upon which I wish to offer one or two remarks--literally, one or two remarks (because we are all anxious to hear Dr. Sinclair), is "Educational Administration." Of course we all realize that to administer efficiently, and with acceptance, a complex educational system, like ours, is no light task, and a wise man will not approach it with a light heart. The system, as we find it to-day, calls for the recognition of two elementary factors. In administering our school system we must provide first for the political representation which is implied by the term responsible government, and we must provide also for the expert knowledge which should guide the deliberations of your administrators. One cannot conceive of an educational administration conducted without the practical knowledge of the trained teacher; it would be absurd, one might almost say preposterous, to suppose that in this province the affairs of education could be carried on without heeding expert advice upon educational matters. I listened with the deepest attention to the address of the President, who dwelt so pointedly upon many of the outstanding features of the teaching profession to-day, and it struck me, as it struck him, that the position of the teacher to-day, and the responsibilities which the teacher has to shoulder, constitute this a different period from almost any that went before it. We are passing through a period of reconstruction. Old ideas are giving way; opinions that were formerly unchallenged are being called in question. We live in a time of great commercial prosperity, of a marked tendency to luxury and wealth. The reverence for many of the things of the past has been declining. In days of yore the teacher was reinforced at almost every turn by a strieter parental discipline, by the unquestioned authority of the churches, and by many fixed standards of social life. To-day in much of the work which falls to the lot of the teacher, he stands absolutely alone, and yet we find that there is a failure to give the profession a fair share of its material reward. It seems to me that the position of the teacher has been overlooked and neglected to an alarming extent. Other professions have been rewarded and honored out of all proportion to their merits; they have been buttressed by legislation in every possible way, and it seems to me that there may be a time coming when some strenuous fighting and some plain speaking must be indulged in before the teaching profession comes to its own.

The other element of which account must be taken in our edu-

educational administration is the element of political responsibility. Our system, of course, is the result of historical growth. One could easily see that in the days when this Province was united to the neighboring Province, the affairs of education were properly enough in the hands of permanent officials only. We had a Province united in name, but with two races, with two languages, and with widely differing ideals. It was in those days wise that educational administration was brought as little as possible into the political domain. Dr. Ryerson was an exceptional man, and naturally under him the system which he built up and controlled was exceptional. But when this Province resumed its status as a separate Province the appointment of a Minister of Education was a natural consequence, and Dr. Ryerson himself, recognizing the altered conditions, recommended the creation of a portfolio in the Government of the day to be filled by a Minister of the Crown; and it is pleasant to recollect that since the appointment of Mr. Crooks down to the present day our Minister of Education has always filled a most influential position in each successive ministry. Of course the system of government by ministry has its advantages and its disadvantages, but it is the natural expression of representative institutions, and as long as we have those we are certain to have a Minister of Education. The office of Minister of Education expresses the right of the general public to the official control of education, and this brings us into very close touch with the ratepayer, represented by our admirable friends the trustees. I would like to say, Mr. Chairman, that in my judgment if there is one subject in which the education of the people of this province has been absolutely neglected it is the question of taxation. Governments, both Federal and Provincial, tax directly as little as they can. Some of them are quite ready to take a portion of a man's estate after he is dead, and cannot conveniently complain, but as long as the property-owner is living he seems to be a terror to the bravest government that ever lived. The consequence is, that excepting in the matter of municipal and school expenditures, the Ontario taxpayer never feels the hand of the tax-gatherer in his pocket, and we must not wonder if under these circumstances, when the high expenditures of the country seem to be carried on without any call from the tax-gatherer, we must not wonder if Boards of Trustees find that the people whom they represent are apt to be extremely frugal, and at times niggardly.

I think that the trustee boards in this Province have shown a great deal of courage and determination during the last two or three years in dealing with the spirit of frugality which they have to represent, and I think they are entitled to our gratitude and support in the line of policy which they have been pursuing, in trying to raise salaries wherever it is possible.

But, as I said, the office of Minister of Education is a permanent and fixed feature of our system; it will continue to represent the public claim to control education; and one might just as well recognize that the legislation of last year—in creating a Superintendent of Education, and in creating an Advisory Council, elected by educationists themselves—that legislation was avowedly drawn with a view to abating not one jot or tittle of ministerial responsibility. I think myself it would be a very lamentable thing if the ministry of the day, considering the history of this Province before Confederation, considering Government by Cabinet as we have it now, I think it would be a great misfortune if the Minister of the Crown who represents education were able to take refuge behind the permanent officials of his department. I think it is right he should assume the responsibility and be prepared to answer for his discharge of it. The legislation of last year was the product of a new government, and of almost any government you can say, what Samuel Johnson said of a Scotchman, “that you could do something with him if he were caught young,” and as a young government produced the legislation which you see on the statute book now, it seems to me that we should encourage its members to go on in the path on which they have set out, and that we should not for a moment consider that all the reforms which we need were obtained last year, and are to be obtained this. As you are aware, there are four bills pending before the Legislature this year. I need scarcely say that a great deal of the time of Dr. Seath and myself and others has been taken up with the consideration of changes; it was hoped that the consolidation of the Public Schools Act would be ready for this session, but as we have come nearly to the end of the session it was deemed best, in order to get some bills through without fail, to offer only those amendments which seemed to be most pressing, and therefore, the Public Schools Amendment Bill, which is now before the House, contains only those clauses which we deemed to be absolutely necessary. There are a great many others of excellent scope and intention, but we trust that they will be put through next year.

The bill amending the Department of Education Act deals with the apportionment of the grant, and the system to be followed will be laid before the Legislature by the Minister in a very short time, probably before you adjourn your meetings. The other bill is the measure relating to the qualifications of certain teachers; that bill, as you are aware, was necessitated by a judgment of the Privy Council, affecting the rights of certain persons to teach in the Separate Schools of this Province. The measure in my judgment is one of the best which was ever offered in this Province. Its sole intent is educational efficiency. The Educational Department has drawn freely upon the vast experience and wide outlook of Dr. Seath in framing that and other measures; and in my opinion there never was a measure which should be passed with less cavil, or with a more hearty appreciation of what it may do for the education of this Province.

Now, I have to come to the end of my remarks, Mr. Chairman, and I merely desire to say on behalf of the permanent officials of the department, that we welcome the Association as an important body in every way, and that we are glad to be of use to its members in any manner in which we may be called upon. As we are permanent officials, we know nothing of party politics or of the affairs which go on in the political world; we desire to be considered as public servants, anxious to do our duty to the general public, and hope to find, as we have found in the past, the Educational Association of Ontario a valuable adjunct in educational work. If you will pardon a personal word, I would like to say that, coming amongst you as I did a year ago a stranger, I appreciate very much the consideration and forbearance which you have shown towards me, and as I spring from a race that has not been lacking in gratitude, I trust that the future will show that I am a firm friend of the teaching profession of Ontario.

*METHODS OF IMPARTING EDUCATION TO OUR
FRENCH RURAL SCHOOL CHILDREN—BI-
LINGUAL NORMAL SCHOOLS AND
CONTINUATION CLASSES.*

DOCTEUR EUGENE G. QUESNEL.

I must tender my best thanks to your esteemed President, Mr. Scott, and to your Board of Directors, for their courtesy in allowing me ten minutes, during which I will endeavor to fulfil the mission confided to me by my colleagues of the Council for our united counties of Prescott and Russell. Therefore, I beg leave, without any desire on my part of wasting any of my ten minutes in useless apologies, to lay before this important convention the most rudimentary educational needs and requirements of all our Ontario French rural school sections in general, and those of our united counties in particular. The problem of educating our French rural school children seems to have been somewhat underestimated, and I am here this evening to emphasize the fact that it is the duty of our Provincial Legislature to see that these children receive some adequate education which will allow them thereafter to proceed in the walk of our modern material and mental progress. And let me tell you here, ladies and gentlemen, that this problem can never be solved by any vague sentimentality nor by any misconception of patriotism, but only by appeals to that true patriotism based upon deep and sound reasoning which is at the very foundation of every true British institution.

I believe that a short physio-psychological survey of the whole problem of education will not be out of place at this special juncture, as it will give us all a clearer insight into the methods of proceeding with our French rural schools in general in order to raise them up as rapidly as possible to a legitimate and satisfactory standard.

We are all more or less conversant with what is inferred by the words "home education," "school education" and "practical education." These words imply fairly well-defined processes of development of our mental faculties at stated ages of our lives. For

instance, home education is the most acute stage of development of our sensorial apparatus and of the brain substance, the acknowledged vehicles of the mind. It is the age "par excellence" of the impression of lasting images upon the brain substance and of the acquiring of languages. Home education begins at birth and extends to the age of discretion, or about the 7th year, and is acquired almost exclusively through the means of our senses; it is, therefore, almost an exclusively sensorial process. Whereas school education, being more analytic, is almost exclusively a mental process. School education begins at the age of discretion and extends to the age of puberty, or about the 14th year.

Of course it is next to impossible to draw very fast lines of demarkation between what is being accomplished in the child's mind during these three stages of his life; still I think it to be in harmony with experience in stating that practical education begins at puberty, and extends to the age of majority or to about the 21st year. It is the age of passions and the proper time to regulate them so as to make them instrumental in promoting both our material, moral and mental welfare. Now, then, as regards school education, which is the all-absorbing subject of this convention. Practically speaking, what is school education? It is the analysis of all that the child learned at home prior to reaching the age of discretion, analysis of all those images his mind had then perceived from the outside world through his sensorial apparatus, analysis of images of form, odor, color, density, heat, etc. School education proceeds with ciphers and numbers; it aims at having these suggest to the mind of the child the image of what he learned unconsciously at home through his sensorial apparatus, and having him express it through his vocal apparatus. School education aims also at training the child's muscular apparatus so as to enable him to convey into ciphers and numbers the images suggested to his mind by the outside world, and to establish such a relation between the mind and all those apparatus of perception and expression as to leave the latter under the immediate control of the former. In other words, school education aims at training the child in such a manner as to enable him to describe spontaneously and intelligently, orally or in writing, the images suggested to his mind by the outside world. Now then the question arises: In what particular language should this school education be given? Mark me well, ladies and gentlemen, to be effective, this school education must be given in the very language that the

home education was imparted. In fact the ciphers, numbers and characters must be such as when enunciated by the teacher will awaken in the mind of the child the memory of a sound used heretofore by the latter to designate the very same definite object. Home education is then the natural and logical ground work of school education. Hence, if definite tangible results are really and honestly anticipated, the necessity, the absolute necessity of first teaching a child in his mother tongue, and in the tongue of his early comradeship. Otherwise a new groundwork must be created in the child's mind, his home education must be begun all over again with the infallible result that at the age of fourteen this child will not be much further ahead of what he knew at the age of seven.

On the other hand let school education be given in the mother tongue, and then in a comparatively short time this child will be enabled to establish in his own mind the relation of his own spoken to his own written language. By that time his mind will have reached a very admirable state of development. It is then that the child's mind is undergoing a process of development which, through analogy, is the most favorable to the acquiring of new languages.

But listen to what Professor Laurie, of the University of Edinburgh, has to say on this subject. In the course of a Cambridge lecture Professor Laurie said: "Inasmuch as subsequent rules of methods demand that foreign grammar should be based on the native grammar, we should, by not beginning native grammar until the twelfth year, have to postpone Latin and French till the 13th year at the earliest. But let me repeat here, in passing, that children should be made to live in the atmosphere of their mother tongue alone, and to think through the vehicle of it alone, if we are to promote in them depth and solidity of nature and unity of character," etc.

Professor Laurie was then addressing an English audience on the best methods of imparting education to English children. Now then, applying these words of the great Professor to our French rural school children, I maintain, and in so doing I adhere very closely indeed to the most elementary principles of logics, "that they should be made to think through the vehicle of their mother tongue alone," if we wish "to promote in them depth and solidity of nature and unity of character," and also some practical education which will be a help to them all through their lives.

There are many good and honorable Britishers who, misled by pure sentimentality or by a misconception of patriotism, believe, and firmly believe, that the fact of hammering a few English words or sentences in a young foreigner's head is the evidence of the summum of teaching power as well as the best method of imparting to them some education. These well meaning men do not seem to discriminate between knowledge and language; they should remember that knowledge is a clear perception of the mind, whereas language is a mere vehicle of expression. Therefore between knowledge and language lies an abyss which cannot be bridged over by vague sentimentality, but only by deep and sound reasoning and by logical teaching.

Every method of teaching states emphatically that it is not for the child to rise up to the teacher, but that it is for the teacher to stoop down to the child in order to raise him up gradually to the heights of knowledge. And with what result, may I ask, if the teaching is imparted in a language unknown to the child? With the mere result of imparting a new sensorial education soon to be forgotten, and this at the expense of real knowledge, which is a pure loss of money, time and energies. Any attempt at bringing thus back a full grown child to the times of his nursery is a direct outrage to the human mind.

The experience of the past teaches us the inadequacy of the methods adopted in dealing with our French rural schools. Why then delay any longer in adopting the only logical course left for our diplomats and educationalists in dealing with the educating of our French rural school children?

My opinion is that in the past, to cope with this problem, too much reliance has been placed upon sentiment, or upon a vague misconception of patriotism. And with what results? With the result that the English language is now less prevalent in our French rural school sections than it was twenty years ago, and that the academical standard of those schools has been much lowered. And this is most decidedly owing to the inadequacy of the several methods adopted in dealing with such schools.

I may be very erratic in my own contention, and still you will grant that a good remedy, compatible with this sad condition of affairs, would be the establishment of good bilingual rural schools with teachers well versed both in French and English literature and conversation. And how could we get such good bilingual

rural schools? My opinion is that they can be got only through the establishment of bilingual continuation classes and of bilingual Normal schools where needed and requested, with teachers well qualified to teach in such. And where could we get teachers qualified to teach in such bilingual high schools? For the present, at least, in the selection of such teachers, the Department of Education could be guided by our Inspector, Mr. Rochon, or by a special board of well educated Ontario French-Canadians, with University degrees, and well versed both in French and English conversation and literature.

You will grant that academical qualifications, combined with a few years' experience in teaching would have to do at the beginning, and that such academically qualified teachers, competent to teach in such bilingual high schools, would have to remain in charge of such schools until such a time as competent legally qualified teachers' services could be procured. I understand that from time to time, the Ontario Bilingual Association has been besieging the Department of Education with requests to the above effect, and without much practical results as yet; but there are rumors abroad to the effect that the Minister of Education and his amiable deputy, together with our esteemed Superintendent of Education, are contemplating some means through which our French rural schools are to be greatly benefited.

This year the council for our united counties of Prescott and Russell has taken this matter in hand, and is now looking into the whole subject thoroughly, and at our June session of this year will lay before the Lieutenant-Governor-in-Council requests which will embody the bulk of educational requirements. In the meantime our county hopes for every aid and faithful assistance in order to convince the Educational Department of the necessity for the establishment of bilingual Normal schools and continuation classes where needed and requested, and it is with that object that I was delegated here where we knew we could be well understood; and I trust that this convention, either through its Board of Directors or otherwise will see its way clear to frame some practical suggestion to the Department in the manner I have just described. And you may feel assured that by assuming such an attitude you will render some invaluable services to the cause of education amidst our French rural school sections, and that your action will be highly appreciated, both by our county council and by myself.

LARGER UNITS IN EDUCATIONAL THOUGHT.

A. E. WINSHIP.

As you must have discovered, my themes are entirely out of the usual; I bring you not a set oration. I have a few addresses that I have given several hundred times that I sometimes on occasions bring up, but my mission, as I understand it in an Association, is simply to report as best I may what I have seen and thought as I observed. I do not come to you with any purpose of bringing a message that I am ready to die for. Some of you labor under the impression that the things I say are things that I am so tremendously committed to that I should be very sensitive if you offered any criticism to what I say; it is nothing of the kind. I do not come to you with any theory, I do not come to you with any scheme in which I have any pride. I would not spend one minute defending any position I take except for the fun of the thing. Really, I am never so happy as I am in a scrap. I will own up to that; and so in that sense I would enjoy it. All that I am attempting to do in these talks, and I have spoken four times already, is to tell you what I think I see to be coming; that is all—what I think I see in the air. If you don't see it, all right; if I am mistaken, all right, it won't make any difference at all. If I am right, it will come, whether you want it to or not. If I am wrong, it won't come, whether I want it to or not. So let us have a square understanding with each other at the opening of the evening. As I said yesterday, when talking on personality, the theme of this evening should have been the first one, for everything that I say rests upon my conception of the fact that our units of thought are the vital thing; that we need the enlarged unit of thought; and I think that is true whatever phase of the question we take. We need this enlarged unit from the teachers' standpoint. There is not a subject in the school room where we do not need the larger unit; and without regarding whether it is Latin and Greek, in the secondary schools or the university, or whether it is the work in the primary school or in the technical school, anywhere I think we need to be enlarging our unit of

thought, for that is what determines ultimately our whole theory and our usefulness. Now there are some people just big enough to have a school district as a unit of thought. If I understand what you mean by trustee, every school district has a trustee, or Board of Trustees. Is that true? (Voice—Board of Trustees). Well, now, that strikes me that somebody advocated a Township Board, as I understood it. Now, I am old enough to remember the time when we used to have those local Boards of Trustees. I am old enough to remember when in the State every school had its own District Trustees, and in those days it was very difficult for anybody to get a unit of thought larger than that special district. When you come to the Township Board, which has now been for many years with us, instinctively your unit of thought gets enlarged to a township. Once in a while you will find a man large enough to have a legislative district as a unit of thought, or possibly with us a congressional district as a unit of thought, and now and then a man who can have a State or a Province as a unit of thought, but you know how rare those people are, how very rare. I was led into all this line of thinking by a remark made by a stranger in a smoking compartment of a parlor car some years ago, that there was only one man in the world who thought in world units. I asked him who that man was, and he said, "Cecil Rhodes." Now, I didn't like Cecil Rhodes at all. I had taken my notions from the current reports in the papers, and he was one of the men that I was in fact coming over all the time. So I threw his remark away; it didn't concern me at all until Rhodes died, and then I found that he had provided for the States and Canada just the same, and for European nations just the same, and so far as I know the only man in the world who ever provided in his will in such a way that national lines were wiped out; and I said that stranger knew something that I didn't know.

I have been watching since then; I have been watching people and seeing the size of men by their units of thought. We see it industrially. You take the labor unions—and you will pardon me if my talk is colored more or less from the States. I have been a good deal in the Provinces, and I have spoken a good many times in all the Provinces except in British Columbia, where I have never done any speaking, although I have been there, but naturally my general experience is in the States; and if I speak from that standpoint you will understand that it is not intentional,

but because it is easier than to stop to make any discrimination. Now, you take the labor union. People sometimes think the strike is the serious matter, or the important matter; not at all. The strike does not amount to that (snapping fingers). With labor unions it doesn't concern me or you whether there is a strike or not; or how great the strike is, or how inconvenient it is; the only element in labor unions that we find any concern in is, the class consciousness. That is all. They have been laboring for years to establish class consciousness; they have it in certain specific lines of labor. The plumbers with us are class conscious, absolutely class conscious. I am speaking for the States; I am not speaking for Canada. For instance, a plumber is a plumber; he may be a Republican or a Democrat, or a Socialist or a Prohibitionist; he is a plumber before he is a party man. He may be a Presbyterian, or a Methodist, or an Episcopalian, or a Unitarian, or a Catholic. He is a plumber; and he will go for his pastor as quickly as for anybody else, if his pastor employs a man who is not a union plumber. They have succeeded in getting class consciousness among the plumbers perfectly, and they have it pretty well among the carpenters. They have certain lines of class consciousness, but one thing they have never yet attained, and that is to get a labor class consciousness to any extent, and that is what they are laboring for all the time. Whenever I am in Chicago on a Sunday, every other Sunday they have meetings of the Federation of Labor, and I always attend. They don't know who I am; I just put on my everyday clothes, and go in with the crowd, and sit there. I have done it a great many times, and I have never been there when there was not a scrap on among themselves. I remember very well one time, not a great while ago, the time the strike was on in the slaughter houses and packing establishments, and there was to be a picnic, next week, or two or three weeks ahead, the proceeds to be given to the support of the packers, and one after another organization pledged their support, the support of this organization and that organization. The carpenters pledged their support, the teamsters pledged their support, and so on; and by and by a fellow jumped up and said: "Well, you had better not waste any time on this; I tell you there is music in the air; you better give all the notice you can now, for I want to tell you there won't be a poster up, nor a handbill distributed in the interest of that." And they said: "Why, why, why, why?" He

said: "You haven't employed the Bill Posters' Union to put up your posters, and we will smash everything, and take those down, no matter what comes." And there was a great rumpus there. I never heard such scrapping in my life as there was, because they had not employed the Bill Posters' Union. And they tried to explain that this was charity and philanthropy, and they were not employing anybody; they were doing it individually to save. It made no difference. "You have no business to do it." "Why," said the man, "what right has a barber to put up a sign, a poster, even in his own shop?" Now they have never yet been able to get class consciousness beyond these narrow groups. That is the struggle to-day, and it is the great struggle. Those people can think in small units; there are some people—there are some educational people—that can think in the unit of their own subject. Why, I remember at the State Association in Wisconsin, a year ago last December, I remember going into the Music Department, where I was called to speak, and the President of the Music Department was reading the Riot Act to the music teachers, and said: "I see that you music teachers, when you went to Asbury Park last summer, you did not attend the Music Section, some of you; there was something that drew you somewhere else: there was a great speaker somewhere else, and you left your Music Department, and went to hear that great speaker, and if that sort of thing goes on, what can we hope from music teachers in this country?" Class consciousness developed terrifically—trying to. Now, the thing ultimately that we have got to have educationally is an educational unit of thought. It will be a good while before we get to it; it will be a good while before your teacher of Greek will have very great respect for your teacher of Biology. But we are just where the plumber and the carpenter and the bricklayer are in the labor world. We haven't a large enough unit of thought, educationally, as it seems to me.

Now, let us take this from several standpoints. Let us take it for a minute from the point of view of specific subjects. Take English for an illustration; take grammar as we teach it in the grades. Our unit of thought is correctness, and we spend a great deal of time trying to fix the relation of the predicate to the subject, you know. We spend a good deal of time. It is a pretty good idea; I am not questioning that at all, but if you can have the idea of beauty of expression instead of correctness, the cor-

rectness has got to come, because there is no beauty of expression without correctness. We have got to have the larger unit; we have got to broaden out, and we are doing it, too. I think we are going to be greatly surprised within the next five years at a complete over-turn. I don't believe there is a primary reading book to-day that will be used five years from to-day; I don't believe there is one that ought to be used five years from to-day. For instance, we have a child begin by saying, "I see a cat." Now, I have no objection to that particularly, but we will have the rhythm idea in the very near future. A child will see if you will take the rhythm. Suppose you take the rhythm, "The old clock says, tick, tick, tock," and just take that as a rhythm. What do I mean by rhythm? I mean something that we get into our minds unconsciously, and that dominates us. If I could write upon the board here this sentence: "I said that she was sixteen years old." "I said that she was sixteen," and then I could write this, "She is sixteen." Nineteen people out of twenty, forty-nine out of fifty children, will say sixteen the first time, and sixteen the second time. If you try that you will see it; they fall into the rhythm. "I said that she was sixteen." "She is sixteen." You can't help it. Little children all do it. There is a rhythm that swings you and sways you in these matters. Now if you will take that single thing, "The old clock says, tick, tick, tock," and if you will take that with you, "I see a cat," and put that in, "I see one, two, three cats," then the child will take that infinitely easier than she will say, "I see a cat," and you can play one hundred changes on that, and the child will take every one of them with a relish, and you are doing something. It is exactly the same thing that you get in your language. You go into a modern language room; I visit modern language classes a great deal, and I can tell in the fractional part of a minute usually whether that teaching is of any earthly good or not. I don't care for the translation; if a child will read two or three sentences in a language that I know nothing about, I can tell at once whether he gets anything, by whether he gives the rhythm or not. If the child reads that language with a rhythm I know that he is thinking in that language, but if he goes halting along through it, I know that he is not thinking in it at all, and I don't care anything about how perfect his translation may be. We want these ideas, these units of thought. I have taken just two or three

for suggestion, and nothing more. Take again your number work, your arithmetic. We go along so haltingly with our elementary number work, we are so afraid of the multiplication table, we are so afraid of things. Why the multiplication table can be taught to be a perfect bug-bear, I grant that; but if you will let those children make up their own multiplication tables, instead of seeing them in books, and let them go to 19, instead of stopping with 12, then you will have them wide awake—easiest thing in the world. Any child in school can make his multiplication table up to 19, and be perfectly happy in the doing of it, and then what he gets behind there settles down, and he has no trouble at all. There is never trouble with the table of 8's when he has got the tables of 13, 14 and 16 on his tongue's end; he will never have trouble with 8 in the world. The trouble with us is that our units of thought, as it seems to me, have been so small that there has been no life in them, no spirit in them, no power. The element from first to last is an element of life that we demand, and for which we plead. Take geography; take our units of thought in geography. I referred to one phase of it yesterday under "Personality." Why, do you know I taught geography when I was doing this smart thing, when I had every child recite the capes. I had one class that was a show class, you know, a crack class. I can hear that class now reciting the capes, beginning at the north-east corner of North America and going down around and back again in a glorious fashion. I did not know enough to know that a cape was the most useless thing the Lord ever made, a geographical vermiform appendix; a thing that happened to get left over, because it couldn't wash away, not worth anybody's knowing unless you were where you could hang longitude on it. And yet I taught geography in that poor way right along. But to-day what we want is a unit of thought in geography. Let us take the perspective in geography. Take the census notion of geography. New York city—I use the 1900 census—had 3,500,000 people; Chicago, 1,750,000 people; Boston, 500,000; but New York has 328 square miles, Chicago 192 square miles, and Boston 42 square miles. Now what have you taught when you have taught census figures merely, and have not taken the area into account? There never was a geography made that recognized the fact that you were comparing a 42-square mile city with a 328-square mile city, and a 192-square mile city. The

unit of thought in a municipality is always the commercial unit of thought, that is, the people within a hour's ride by general judgment. Every commercial building, every retail commercial enterprise figures the people within an hour's ride. In America we call it 50 miles; in England they call it 40 miles. Every business house establishes its business on the basis of the number of people within that radius. Siegel Cooper came to Boston and invested \$7,000,000 in a retail store; for 500,000 people. Oh, no; they never would have put up a store there for 500,000, but within an hour's ride of Boston there are 2,700,000 people, and they built a store for 2,700,000 people, and not for 500,000 people; and we go right on teaching geography with a census unit and with no commercial unit. So I could go on illustrating. I am simply throwing out a few suggestions along the line I want you to think of in your own way. Now let me pause and take another view; let us take the unit of time. Now, you know, the unit of time is a vital matter. Mr. Rockefeller, undoubtedly the greatest business success that the world has ever known—we will not quarrel just now as to the ethics of his business—but he has amassed a tremendous fortune, he says, that he has only \$300,000,000, and he thinks it is an awful thing that people thought that he had more, but \$300,000,000 is enough for all practical purposes, I think, and represents a respectable amount of success; and yet, I will put a stunt up to Rockefeller to-night that he dare not accept, and all I ask him to do is, to try to go to any American city and sell valentines on the 3rd day of July. That is all. He couldn't do it. He couldn't sell a valentine on the 3rd day of July if he gave 50 per cent. discount, not if he should advertise in every paper in the city, not if he plastered all the bill-boards with the announcement that he was selling valentines, he couldn't do it. The boys are putting their money into firecrackers on the day before the Fourth; they are drawing their money out of the penny banks to put into firecrackers.

Now, let me take another range of units. Let me take the time unit in the larger sense. Let me take the century unit of thought—and I speak from the States standpoint largely. Incidentally it touches a little of the provinces, but in no such way as it does the States. The first century of American life, the 17th century, was a century of authority. In those early years, the church, the state, everything represented authority. In those

days there never was an eloquent speaker, nor an eloquent preacher. A man didn't have to be eloquent to preach; the people had to listen, and they had to keep awake while the speaking was going on. There was a man who walked up the aisle with a long stick, and if anybody nodded, his head was tapped, and he had to wake up and look up. I was in the University of Illinois lecturing for a week, four weeks ago, and Prof. Dexter, the head of the Department of Education, was telling me this experience. He was telling of the great line of distinguished ancestors he had, all named Dexter, and he said: "I just stumbled on a very interesting fact. I had known for some time that Thomas Dexter, in the 17th century, living between Boston and Salem, was deprived of the right to vote for twelve years; he had been an office-holder, he had been a select man, but for twelve years he could not vote, and I couldn't find out why it was that they took from this man that right." But recently he has discovered, in a church record, that this man Thomas Dexter was milking a cow, and the cow tipped the milk pail over, and Thomas Dexter said, "Damn cow," and the church insisted that he should not vote, and he didn't vote for twelve years. That was the day of authority. Then you come to the 18th century, and authority passed away, and in its place came opinion. Then there was a century in which you did have eloquence, in which you did have authors, in which you did have great sermons preached in the Colonies. There was Jonathan Edwards, who preached as no other man in the States or Colonies has ever preached, a terrible doctrine I grant, but a mighty logic he preached, because that was a time when opinion swayed because authority could not hold. Jonathan Edwards was the tenderest-hearted man I ever knew. He couldn't spank one of his own babies; he had his wife do it always. The last letter that I discovered, an original letter of Jonathan Edwards, was one that he wrote one of his boys, in which he offered the boy a specific sum of money to be good, rather than to whip him into it. And yet Jonathan Edwards would take a soul and hang it over fire so hot that it cannot be described in the 20th century, and he would hang it there by a thread so thin that you cannot imagine the frailty of that thread, and he would stand there and hold that soul over that heat until the audience would get perfectly frantic, and he never would have the faintest suspicion that anything could possibly happen. A tender-hearted man, the tenderest of men, and yet his

logic would carry him where it would because it was in that century. The man does not live who could hold twenty people together to-day with a sermon that Jonathan Edwards preached in those days, unless it was a very scholarly twenty that came together to listen for the intellectual effect of it. Then came the 19th century, in which opinion faded away. The great preachers in the States in the 19th century were the men with no logic.

When the 19th century opened, there was not an organization of any kind in the States. It was twenty-four years before there was a political organization with a National Convention. There was not a missionary organization, nor a temperance organization, nor a Sunday School organization, nor a women's club organization, nor a federation of women's clubs, nor a Young Men's Christian Association, nor a Christian Endeavor, nor a Kindergarten Association, nor an Educational Association, nor anything else, when that century opened, but when it went out the States were organized to death absolutely.

Today organization, as such, is largely passing away in the States. It takes no courage to say that to-day anywhere in the States, but I want to say to you, that when this phase of my study was worked out in the opening year of this century it took a lot of courage to say it. I have been a party man all my life. I never had an office, never could, never was situated so I could take an office, but I have been in the forefront of our political battles in city, state and union for a quarter of a century. I have been in our National Convention for the last three, and when I said, at the opening of this century, that organization was doomed, that machinery was not worth having, and that the "Boss" would soon be a thing of the past, my party associates often called me down with a cold, dull thud. They said that was heresy of the worst kind; but to-day any man running for office in any State of the Union proceeds first of all to have it understood that there is no machine behind him. There isn't a man who would dare to run for Mayor of a city there as the representative of a machine. He says he hasn't any Boss; that is the first sentence that he ever utters. Now what is coming in its place? What is going to succeed organization? What is to be the unit of thought? I am not a prophet, nor am I the son of a prophet. I am nothing but a Yankee, and a Yankee can guess, and so I am going to guess without prophesying, I am going to guess that the 20th cen-

ture is to be a century of standards in place of organizations, that it is the standard that is to rule and not the organization. Now, I want to pause at this point and say that in the States we have several men who think they are alive, but who have been dead some time. In the States we have a few men who think they are living in the good, old days, when their authority was the vital matter. You don't know anything about that up here in the provinces, but over there in the States we have a few men to whom authority, a little authority, a very little authority, goes a very long way.

We have some men who think their opinion is of the utmost importance. I have tried to say to you to-night that I don't claim any virtue for any opinion I ever had. I wouldn't defend any opinion I have. It is not a question that is worth my while to talk about, or yours, and yet in the States we have in most every community just a few fellows who think that their opinion is as sacred as the Holy Scriptures, just exactly.

But in this new century we are to have standards as our unit of thought. I have been asked many times in the States how I happen to see this coming; now everybody sees it over there; then it was not so clear. Why, look at the United States Congress. For forty years, or certainly for a third of a century, there never was a vote changed in Congress or the Senate by speech. I think that is literally true, so nearly literally true that it is a safe proposition to make. Up to the beginning of the 20th century—or I think 1898, when the first break was made—every man voted in our Congress as his party caucus decided that he should vote unless he was an Independent. We almost always had about one man there, and that man was so honest that he never was influenced by any speech but his own, so that is a safe proposition. But to-day speeches are swaying Congress. Go back to last June. One speech in Congress last June was made by a Republican, and there were but four Democrats in the House that voted the other way, or dared to vote the other way, and they all apologized for it, and said they would have voted if their vote had been needed, but inasmuch as it was not needed they liked, for the sake of consistency, to be allowed to vote on the other side. What was that speech? A man brought a table into the Congressional Hall and covered it all over with bottles and packages. It was when the Pure Food Bill was up. He stood here and took a package and tore off the top of it, and said: "This is pure black pepper," and then he threw it at the

eyes of the Congressmen. He said, "You needn't jump, it won't make you wink." Then he said, "If you like that as a standard for pure black pepper, then vote against this bill, but if you want another standard of pure black pepper, then vote for this bill," and so he took up one thing after another, and the only speech he made was, "This is this standard; if you want another standard then vote." That speech was without a phrase in it that was eloquent, without a single thing that looked like logic or eloquence, simply holding up standards there for an hour, that is all. I was in the seeded raisin establishment in Fresno, Cal., a few weeks ago, a perfectly marvellous establishment, and they were weighing every package of raisins, each one by itself, every pound package. I said, "I didn't suppose you actually weighed these packages." The gentlemen said, "We do, we weigh every package, and when we get a box of 36"—if that is the number—"packages together, then we weigh the box, and if it falls short a half an ounce we take the package all to pieces and weigh every one separately." He said, "That Pure Food Law makes us mighty careful." It is a new standard; that is all. I was going west on the 1st of May a year ago, and on the road from Boston to Chicago, was one of the prominent Republican politicians of Illinois. He said to me, "I want to say to you that Theodore Roosevelt is going to hear something drop right off; within two weeks there will be a million letters pour into the White House from all over this corn belt; every farmer, his son and his wife and all, are going to write letters to Roosevelt and tell him to let up on that packing house crusade of his, because it will reduce the price of pork and the price of beef, and it will ruin the corn crop. It will wreck the whole corn section of the country." And I was frightened, you know, and I just waited every day to hear what had dropped, and the thing passed by, and Roosevelt kept right on, and I saw that man afterwards, and I said, "Well, those letters didn't have the effect you wanted?" He said, "They wouldn't write them at all." They had a standard of house-cleaning and of house-keeping that was entirely new.

Where did this thought of standards come from? Simply because I had discovered that we were all of us worshipping at the shrine of broken records. I saw that everybody was trying to break a record, and that everybody was reading everything where there was a record broken, and I knew that meant something. The

porters in the cars, the brakemen, the boys in the hotels, everybody everywhere, ten years ago was talking about somebody somewhere who had broken a record, and I had my car close to the ground and said, "Why is it that everybody is trying to break a record?" and then I said, "It is because we are going to have new standards when the records are broken," and we are. Now, come back to the school-room, and we are going to have a new standard in our school-room life? Go back with me to the University of Illinois. First, in that University the State gives \$200,000 a year to aid an industrial experiment station for the people. While I was there I was taken for a ride on an electric car owned by the State University, and as we rode fifty miles out, over the regular trolley lines of the State, there was in the car a long sheet, a roll of paper, and on this little red pens were registering. What were they registering? They registered the rate of speed every rod, they registered the grade at every point, they registered every curve in the track; they registered every thrill of electric power required at every point on the line; they registered all the force required by the air brakes; they registered the force exerted by the car on the rails on every curve. When we got home they took that register out and rolled it up and filed it away. It was a wonderful experience. They had there a car known as a dynamo-meter car, for the steam road, that registers everything conceivable. A little while ago somebody came to the officials and asked them to purchase a new kind of truck for the freight car, and they told them just how much it would be worth for them to put it in. Five years ago the officers of that road would have bought that truck on what they said it would do, or they would reject it wholly on the logic of the matter, but this time when that was proposed the officials of the road said, "Install these trucks on forty of our freight cars; we will put forty tons on each car; we will put the locomotive and the dynamo-meter car of the State University between the two, and we will let that locomotive with that car and those forty cars run 100 miles where our sharpest curves are and our highest grades, and then we will do the same with a train with the ordinary truck, and we can tell to a minute what your trucks are worth." Now we have an age in which our unit of thought must be demonstration of power, demonstration of what can be done; and I say to you, friend, our schools have got to meet that test. Our schools have got to face

the demonstration in the power of the children after they leave the schools.

Again, I there saw some soil so poor that it would raise six bushels of wheat to the acre; and there I saw that same soil, with no fertilizer put on it at all, but they had simply raised clover for a few weeks, until the rootlets were charged with bacteria, and then they turned that life right into that soil and sowed their wheat and raised sixty bushels of wheat to the acre. We have been living in the fertilizer age, agriculturally and educationally. That day is going by. A man who should put nitrogenous fertilizers into his soil to-day would be laughed at, because bacteria will take more nitrogen out of the air than all your nitrogenous fertilizers could put into the soil. The Lord knew what He was doing when he left the nitrogen up here, but we didn't know that He knew that at all, but He happened to know what it was. What they want to-day is life in the soil, and that life gives to that soil its power; and the new units of thought are to be units of life, that is, it is to be life that we are going to demand in the teacher.

I have a friend in Pottsville, Penn., by the name of Schroepe, a Grammar School master, who has a farm just out of the city, and he has on his farm 2,000 white leghorns, and he sells his eggs to the Bellevue-Stratford hotel, in Philadelphia, and gets for every case of eggs 50 per cent. more than the ruling price. The first thing he does every day is to see what the price of eggs was the day before. He doesn't care for any earthquakes or fires or floods; he looks in the paper for the price of eggs, and the day I was there it was 28 cents, and he billed his for 42. I said, "I didn't know white leghorn eggs were worth any more than any other." He said, "It is all in the contract." I said, "What is the contract?" He said, "I signed a contract that if in any case of 360 eggs one egg is out of date, I sacrifice the whole 360." I said, "Who is to be judge?" "Why," he said, "they are to be judge." "Have you no appeal?" "No, no appeal." "Well," I said, "don't they impose on you often?" He said, "I have never had a case come back to me in the world; never have had a charge brought back; my brother collects every egg and stamps the date on it, and it is never two days old when it gets to the hotel, never. That is the significance of the whole thing. I not only lock the case, but I seal the lock, for fear that somebody

should break the lock or unlock it with a false key. The hotel says that they cannot trust their help; that one out-of-date egg would practically wreck them as a hotel, and they can easily afford to pay the 50 per cent. extra."

I want to say to you, in closing to-night, my friends, that we may just as well make up our minds, first as last, that the day has dawned, if I read the signs of the times aright, in which we have got to face the rising sun in our educational life and work; that we have to realize that we have got to have larger units of thought, that those units of thought must have life in them, that it is not in the future as in the past, simply a question of what we have thought, but it is a question of what we can do with the work that we have in hand, and that work is with these boys and girls. You have here in your Province the same problems we have in the States; you face this fact, that your Province in future is to be a question of the ability of your men in every walk of life to do things as they have never been done before. I see by your papers that you think we are interested in your tariff legislation. A few politicians down there talk a little about that; but we are not afraid of your tariff one way or the other; the thing that we are afraid of is some advantage which you have—and we recognize it, all of us—by your compact organization, and by your conditions as a government. We understand what it will mean to the States when you shall rival us at every point in your educational institutions and in your educational work. We don't care for your laws, if you let us be ahead in the training of our children; but if you should throughout your Provinces lead us in any great manner, you would give us in the States a handicap, and we have one handicap—we have more people from beyond the sea to assimilate and take care of than you have, we have problems that you have not. We are running a race in the States and the Provinces, a race that is going to be intense in the years to come, it is a race of equipping the boys and the girls to do the work of the next few years, and if you lead us in that then you have led us indeed where no tariff can be of any possible avail to us whatever it may be.

Friends, may I bring you just a comparison from my own State of Massachusetts. I chance to be on the State Board of Education there, which has made it incumbent on me to do some studying of my own State, and I compared figures with figures

of the States as a whole. Remember this, that Massachusetts is handicapped as no other State in the Union is handicapped, almost literally, as no other important State in the Union is handicapped. The Lord never did anything for Massachusetts perceptibly; never gave us any raw material, but ice and granite, and to-day they can make better ice than the Lord makes, and the earthquake in San Francisco shows that the stone that man makes is more secure than that which the Lord has made: so we have no raw material to be appreciated. We go 1,500 to 2,500 miles for every bit of the raw material in our factories. We go 1,000 miles for all the food that we have upon which to live, and we go 500 miles for five-sixths of all the power, and for all our fuel; and yet Massachusetts with all this handicap pays 80 per cent. higher wages than the average in the States. Do you know what that means? It means that we have an 80 per cent. longer school year than the average in the States, that we have 125 per cent. more money in school buildings, that we have 296 per cent. more High Schools to our population, and we have more than 500 per cent. more students studying Latin and Greek in the High Schools than the average of the States. That is, we have learned, handicapped as we are for lack of raw material, for lack of food, for lack of power, for lack of fuel, that we have got to think in the unit of education, we have got to make that the unit of our ambition, and that alone has been our safety. That we have to thank for every bit of prestige that we have. I thank you very much, friends, for the privilege of being with you these two days. I have been here to enjoy your discussions, to get the atmosphere and the spirit of your institutions, and now I say to you a very sincere good-bye.

COLLEGE AND HIGH SCHOOL DEPARTMENT.

THE TRAINING OF TEACHERS FOR SECONDARY
SCHOOLS, AND THE RELATION OF
UNIVERSITIES THERETO.

GEORGE HERBERT LOCKE.

In this discussion I feel that I shall be allowed to presume that the teacher in the High School of to-day should be a College graduate.

But what of the training of the College graduate, the holder of the degree of B.A. ? It seems to me the part of wisdom in a discussion of this kind is to offer an historical background that the person who lives by precedent may feel an historical satisfaction. May I then call to your mind that in the first great university where the Arts Faculty was dominant—that of Paris, the mother of Oxford and Cambridge—the attainment of the B.A. degree was recognized as certifying to the ability to acquire knowledge, but not carrying with it the certificate of *jus docendi*, signifying the ability to impart knowledge. When the youth had received the Bachelor's degree he was assigned certain graduate studies and in addition had to teach a certain number of hours a week as a professor *extraordinarius*. If he showed ability to impart knowledge as judged from his teaching, and made a good standing in his advanced studies, he was awarded the M.A. degree. He was now a Master of Arts and the Chancellor gave him the *jus ubicunque docendi*—the certificate good over all the world of letters. My point then is that as early as the thirteenth century it was recognized that there was a difference between the ability to acquire knowledge and the ability to impart it, and that the ability to impart was helped by advanced study—the more knowledge for which Professor Münsterberg unceasingly lifts up his voice—and practice teaching. Thus was recognized the true pedagogy which we believe but do not always practice, “ We learn to do by knowing and by doing.”

It is apparent in this, as it is so often apparent in the history of education, that we have wandered in the wilderness for many years, and even now some will not believe there is a promised land, but prefer to live, as did their immediate forbears, contentedly musing, "Magister nascitur non fit." It is to me a pathetic sight—the person who quotes that proverb and who expects you to draw the inference that he is one of the "born" variety, for certainly he has not been *made fit*. The logic of the situation has often amused me as I have been a member of the much abused departments of education and have listened to my fellow professors of other departments dilate at length on the utter futility of trying to train persons for the teaching profession. They seemed never to see the application of their logic. Here is the picture:

The teacher is born not made.

I am a teacher.

Therefore——

But I do not need in this assembly to defend the thesis that the person who would teach in our secondary schools (would I could include colleges!) ought to receive such definite instruction as will enable him to do efficiently, economically, and cheerfully the work of the profession into which he is to go. To one who has watched the development of the past ten years and has seen the conversions—some of the reason, some of the terror of the law—this defense would be a recital of hard won victories and yet of steady progress. We have gained these victories not by state enactments but by educating public sentiment, and the most difficult part of public sentiment, the professors in our Colleges, the superintendents of our school systems, and the school boards.

An illustration of conversion by "the terror of the law" may be of interest. A certain professor of Greek in an Eastern College, well known to all who know Greek, had the familiar "academic" contempt for the idea of training teachers through a department of education, and therefore he did not advise his students to elect studies in that department. A very desirable position in the High School of a neighboring city fell vacant, and he advised one of the students of his class to apply. She was perhaps the best in point of scholarship in his classes. The superintendent of schools asked her if she had had any experience in teaching. No, she had not. Had she ever taken any courses in the Department of Education in her University? No, she didn't believe in them. The superintendent said that was a little unfor-

tunate, as he thought so much of them that he came in once a week to a seminar on education, and his Board, after experience with those who had taken such courses, were unanimous in making a rule that no person should be employed who had not taken some of these courses. When she reported this to the professor he simply threw up his hands and said, "Well, if the Superintendents and Boards of Education are going to believe in these courses, there is nothing left for us but to agree."

Granted then, for the sake of argument, that we have established a claim to have all persons trained who propose to teach in our secondary schools, the question arises: In what shall this training consist, and where shall it be acquired? Here, then, is our subject.

My experience, and my belief founded on my experience, lead me to say that there is no doubt in my mind but that the university is the place where such training should be given, and that there should be a Department of Education charged with the conduct of this work. "Education," I grant you, is a comprehensive term to use for such a department, but we are trying to avoid that word of doubtful omen and worse pronunciation — "pedagogy." "Teaching" is not comprehensive enough, especially in the United States, where local self-government has raised school organization and administration to such an important position, a condition which is likely to come in Canada, if one may judge from the development in the West.

In what then should the training consist? I think I shall be perfectly safe in saying that such a course as that described by one of my colleagues would not be your ideal. He said that the requirements for graduation in one of the so-called schools of Pedagogy that he attended were:

1. To be able to cover a stated number of pages of a text-book in a stated time with any given class without regard to its size, character, ability or previous state of servitude; and

2. To follow with unquestioning obedience a system of rules devised to reduce to the regularity of clockwork all motion in and about the school premises.

And yet there is something familiar about it.

What phases of the study of education have sufficient interest and intellectual content, in addition to practical value, to justify us in considering them University subjects? In the first place, there is the history of the theories and practices of education, all

about education in actuality as it has been in the past and is now, fully as interesting and cultural as the history of government or of any other phase of our civilization. The study of this subject deals with the concrete and visible and affords a background, reasons of the greatest importance in determining its place in the order of studies.

It is by no means the most popular subject because in the hurry of the strenuous life of to-day where the cry is ever for the practical, whatever that may mean, we find that history, being a subject that one cannot immediately apply, is side-tracked for some alluring title as "applied psychology," desired too often by those who have had no psychology and are therefore learning to apply what they know nothing of. The "get-learning-quick" craze is as detrimental to intellectual progress as the "get-rich-quick" craze is to moral progress.

This course in the history of education should be given in as comprehensive and scholarly a fashion as any other course in the department of history in the University, and my own experience is that the person who gives it while in the department of education ought to have affiliations with the department of history, whence he may derive help and inspiration, and he should be of such training as would give him the confidence of the professors of history. We fortunately have an extensive literature of this subject, and it commands respect from even the intellectually scornful. There is really no excuse, except the dearth of trained men, for the biographical and anecdotal teaching of this subject which prevails in too many of our training schools.

The history prepares for the discussion of the *Theory or Philosophy of Education*, for one cannot well understand the current theories unless he knows something of their origin. It is lack of this knowledge of origin that makes laughing stocks of so many of our would-be educators who live in the present and have never read the educational ideas of Plato and Aristotle, the men who have made all the educators of later days borrowers and imitators. Were Plato and Aristotle more carefully read there would be fewer marvellous(!) educational discoveries made by our flashily trained educators.

The course in the theory of education pre-supposes a course in psychology, which is given in the department of philosophy. My position is that no person should be allowed to take a course in the Theory of Education who has not had a course in the history of

education and in pure psychology. Therefore I should not have psychology as such taught in a department of education. Let it be taught wholly without respect to the application to teaching. Psychology is certainly of aid to the teacher, but it is of aid to all professions. The best psychologist I ever knew was a book agent who sold me an encyclopedia which I did not need, did not want, and will not use. Psychology, as defined by Professor John Adams, of London University, gives the viewpoint of the teacher. He says that when he went to school he learned that verbs of teaching, governing, etc., took two accusatives, the one of the person, the other of the thing, as "the Master taught John Latin," *Magister Johannem Latinam docuit*. In the past it has seemed sufficient to know Latin; now we are beginning to think we ought to know John. The knowledge of John is psychology.

We too often forget that "psychologist" and "teacher" are not synonymous terms. All teachers should be psychologists, but most certainly all psychologists are not teachers. The fact of the matter is psychology has come to its own, and to some of us it seems as if it has absorbed more than its due share of attention. Ethics and the sociological side of education are deserving of being raised from the depths to which the fetish worship of psychology had consigned them.

In the course in the Theory of Education we use the knowledge of pure psychology and apply it to the concrete problems before us. This course should connect with the department of psychology, just as the history of education did with history.

In so far as the general principles of method are discussed it is directly related to psychology; in so far as the ends to be sought are discussed, it is as directly related to ethics.

Then again there is the very important part of educational life involved in the *organization and administration of schools and school systems* with a view to an economical and efficient management of this important public service. This aspect is particularly important in the United States, where the system of local control of schools is uppermost and where, therefore, very grave responsibilities rest upon the Superintendent of Schools and the Principal of the High School. They are two of the most important public men in the community and ought to combine those too often conflicting characteristics of sound and thorough knowledge and practical business ideas.

The conduct of education being a state or provincial function,

it is reasonable to suppose that the officers who supervise the instruction should be trained men, not only because they are charged with a public duty involving financial expenditure, but also because they are dealing with the lives of the future citizens of the state. Therefore County Superintendents and Inspectors of Schools ought to be trained in a department of education where the duties of supervision may be intelligently discussed. In no other way can there be progress in our rural schools. Think of some of the problems which used to arise in some of my classes in this particular branch—the function of the general superintendent and advisory board; the course of study in rural schools; the possibilities of teaching of agriculture and mechanic arts; the selection of suitable text-books (State adoption, County adoption, free text-books, a rental system); the building and ventilation of country schools; the beautifying of grounds; and the possibilities of school gardens; the minimum standard of knowledge for a certificate and of money for a salary; the consolidation of small schools, transportation of children, travelling libraries, school committees, etc.

All that I have said about the administrative officers of the state or province and of the rural districts applies with even greater force to the officers in our cities whose work involves much greater responsibility in that it is dealing with a mass under more or less artificial conditions. The most important men in education to-day in the United States are the superintendents of our city schools, to whom are committed the great tasks of providing for the physical, mental, and moral environment of the children of those cities. They must be authorities on building and ventilation, on text-books and courses of study, on play grounds and the development of efficient citizens. They are expected to be what no human can be. And it is in departments of education that training must be given to approximate this ideal.

I have given this rough sketch that I might suggest to you a few of the many problems that would arise in the courses which correspond to what are given in a department of Political Science, and which are recognized by such a department as distinctly valuable studies. Therefore my plea is that in all these departments, of *History*, *Theory* and *Administration* there are courses which in intellectual content, general interest, and disciplinary value have a legitimate right to be considered as suitable for credit towards the Bachelor's degree.

I am presuming, of course, that those who teach these subjects are not only College graduates and men of experience in school work, but University trained men who have done graduate work in departments of education, and who have the confidence and respect of the professors in the other departments immediately concerned. The lack of this confidence has been the cause of much of the adverse criticism directed towards departments of education. Much of it has been deserved, but, on the other hand, the critics have not recognized the youth of the department, and, therefore, the difficulty of obtaining trained men. Fortunately that day has almost passed, and there is no really great University which has not a graduate department of education.

I do not wish to be understood as holding that there can be only these three courses. These are three aspects of educational study and under each may be given such courses as the needs of the local situation require or the richness of the department may allow. For instance, under *History of Education* there may be short courses in such subjects as these: The Educational Ideas of Plato and Aristotle; the Rise of Modern Education (Rousseau, Pestalozzi, Froebel); Education in England from John Locke to Herbert Spencer; Rise and Progress of Technical Education in Germany and in England, etc.

Under *Theory of Education*: Applied Psychology; Educational Psychology; Mental Development in the Child and in the Race; Child Study, etc.

Under *Organization and Administration*: A comparison of the organization and administration of elementary education in England, Germany, and America, with special reference to the relation to social life; the same problem in Secondary education; Types of State Administration of Schools in America; Types of City Administration of Schools in America; School Taxation and Apportionment in State and Municipality, etc. These are but suggestions that occur to me from the courses given in departments of education with which I have been identified. Fortunately we have some excellent material on some of these newer phases of educational interest, notably the series of Special Reports under the able direction of Mr. Michael Sadler, which made accessible much information in regard to continental schools that has helped us towards the solution of some of our vexed problems.

But there is another aspect to this training upon which I must dwell, and in which as teachers at work you must be particularly

interested, viz., the putting into practice of the knowledge acquired and the method discussed. In other words, no department of education can adequately train for efficiency where there is no opportunity for practice teaching or, as I prefer to call it, experimental teaching. But let me make my position clear. Were I in such a predicament—and I have been—that I had to make a choice between the so-called theoretical and the so-called practical aspects of this training, I should not hesitate a moment in choosing the theoretical. The man of ideas, however theoretical they are, is infinitely superior to the man of methods, provided it is a teacher one is hiring and not a mere school-keeper.

One must remember that the person who desires to enter the teaching profession nowadays is more or less a specialist. That is desirable and natural, for we expect that as a result of going to college we will develop certain interests; college education after all is for the purpose of discovering one's dominant interests. Therefore the Department of Education which insists that the candidate shall teach all subjects, or that all candidates shall teach certain prescribed subjects, is directly opposing the real object of education. The question I put to each of the members of my classes was, "In what subjects are you interested?" Then followed my enquiry from the departments concerned as to the standing of the candidate in those subjects. Is the knowledge of John Smith in the subject of history sufficient to enable him, in so far as knowledge of the subject goes, to teach acceptably in a High School?

But in the economy of administration in secondary education it is not reasonable to suppose, nor do I think it wise to hope, that the teacher will be able to find a position in which he teaches only one subject; again, in seeking a position he may find that the openings in that particular subject are not equal to the supply and yet he must have a position. Therefore, we made it a rule to have the student declare his major and his minor interest. Mark, I do not say that these two subjects representing his major and his minor interest should be "closely related" in the ordinary acceptance of that term, as do some of my fellow professors. I do not feel like dictating as to what two closely related subjects are. I know college faculties often do it, and governments in their paternalism, but let me suggest that these august bodies seem to go entirely by the content of the subject matter and neglect the individual. I see no good reason why there should not arise a person whose interests are Greek and Domestic Science or Latin

and Geography. Because a man is interested in botany his other interest ought to be zoology, has nothing to justify it, except the tradition of abject worship of subject matter.

Let me now outline but roughly, owing to the demands of time, my plan for meeting the difficulties of this part of the training of the person who would be a teacher.

First, the teaching is to be done in a High School and under ordinary conditions. Therefore, it is necessary that the student should have spent some time in studying the problems of secondary education and of observing them in typical High Schools. It is not fair to the school nor to himself to place him at once in the position of teacher, and to allow him to flounder about to the harm of all concerned. He must, therefore, become a student in a short course which might be called the *Aim and Equipment of the High School Teacher*.

There is surely no one present to-day who doubts that there is enough in secondary education to occupy some months in earnest discussion. It is the democratic or democratizing part of our educational system; it is the time of character developing, and in the discussion of the management of adolescent girls and boys, of the arrangement of the programme and of the Course of Study with its subjects, values, and interrelations—with systematic observation of the work of various high schools, and with reflection upon these and discussions in class—with all these, I say, the student becomes acquainted with the atmosphere of the *school*, as distinct a thing as the atmosphere of a class room. We, too often, make the mistake of beginning with the class room and the subject instead of with the school as a whole.

The result of this course is a thesis based upon any aspect of the work that interests the individual, an organization of his observations and reflections upon the work into which he is going, and it almost always develops a sympathetic interest in the work of the school as a whole—a most desirable thing.

Now that he is acquainted with the school, and what should be its aim, and how that aim may be most economically and efficiently accomplished, he is prepared to take a short course in the teaching of his particular subject. Let us take, for example, "History." The title of this course, given by some one of the professors of history, is: "The Aim and Equipment of the High School Teacher of History." In it are discussed the pedagogy of history, its relation to the other subjects in the curriculum, the

order of presentation as suggested in the report of the Committee of Seven, viz., (1) Ancient History, (2) Mediæval and Modern, (3) English, and (4) United States. If only a three years' course is possible, which one of these, from an educational point of view, can be spared with least loss to the individual? etc. During this course the student observes the teaching of this particular subject, and discusses these observations with his instructor.

Now he is prepared to put into practice the knowledge that he has acquired both of John and of History—John as an individual in as far as psychology is concerned, John in his environment in so far as school is concerned; history in so far as he studied the subject matter as such, and in so far as he has studied its relation to the other subjects and in its effects upon the lives of girls and boys. This is the time for the translation of that particular part of social environment known as history over into the lives of boys and girls so that they will be able to appreciate its significance, grow in knowledge, and develop correct judgment.

Here is the most difficult part of the organization of a department of education. To do this successfully—and I do not know where it is really successfully accomplished to-day—there must be a High School wholly under the control of the Department of Education, and the head master of which must be an officer in the department.

I do not dare to say that there cannot be good practice teaching in schools not provided specially for that purpose, and not wholly under the control of the department. It is possible, but it is not economical, and it fails of efficiency. I am speaking now from an experience which, I think, is unique in that it was while instructor in Harvard University with Professor Hannus that we organized just this kind of practice teaching in the High Schools of the cities of Newton, Brookline, Medford and Everett—and we were successful; not as successful as we wished, however, and at a tremendous cost of energy and time in supervision on our part, thereby decreasing our own efficiency in the more purely intellectual work of our department.

The success of practice teaching depends very largely upon the excellence of the supervisory force and the atmosphere of the school. These are sufficient reasons to me for making it necessary that there be a separate High School controlled by the Department of Education. Again, there is to be considered not merely the welfare or efficiency of those who are in training for the teaching

profession; there is the really more important part of the school to be considered in the boys and girls who are being experimented upon or practiced upon or taught—just as you look on it. Their interests must be carefully safeguarded, and to accomplish this successfully there must be an exceptionally good corps of regular teachers, every one of whom must be in thorough sympathy with the work of the Department of Education. It is this sympathy that makes the atmosphere of the school and prevents discrimination against or slighting comment upon the efforts of the teachers-in-training. Atmosphere is greater in its effect than all the rules and regulations framed by the most paternal of governments.

The candidate for practice teaching, having fulfilled the preliminary work, as I have outlined it, presents himself as a teacher in charge of pupils. He is given a class or a section of a class—chosen alphabetically or by lot, so as not to favor or handicap him—and is expected to assume complete charge of the progress of that class for not less than three periods or hours a week. He is the teacher in every sense, and one of the tests of his work is his ability to keep his section working so harmoniously that at the end of one, two, or three months the children under his care may be merged in the other section, which may be under the charge of the regular teacher, and no loss be suffered thereby. Here occurs a query that was suggested to me by a teacher interested in this subject: “Would it be fair to the pupils and to the school to allow practice teaching in the higher forms of our best High Schools where we are preparing children for scholarship examinations?” My answer to that question would raise a point upon which I might speak for a moment. If the ideal of the school is purely intellectual I should say that no practice teaching should be allowed in the upper forms; but let me suggest that, after all, preparation for examinations is hardly to be considered a true standard of teaching. Then again such an ideal suggests that the High School is a college preparatory school, a view with which I heartily disagree, if college preparatory is used in the sense of preparing to pass college entrance examinations. A High School independent of external regulations and dreaded examinations at every turn, free from all deterrent influences, political, educational, and local, an institution from which it is an honor to graduate, having completed successfully four years of study, would be an interesting experiment station and proving ground for the other schools of the Province, and, therefore, would be to edu-

education what an agricultural college and experiment station is to farming, and what a school of experimental medicine is to the practice of medicine—an experiment station where those who hope to be of influence in helping boys and girls to find themselves and their work in the world may be trained economically and efficiently, and thus raise the standard of efficient social service in every community.

There can be no progress in education without scientific experiment, where the plan of procedure is carefully mapped out and results as carefully noted. Therefore in recommending practice teaching I am not speaking of the mere routine performance of tasks, but of that kind of work that is reflected upon and discussed with competent advisors, the errors of which are corrected, the good points confirmed and strengthened, and so the efficiency of the teacher is raised. As I said before, we must protect the pupils, and therefore we owe it to them to fortify and enlighten the teacher in training. The supervision must be constant, for he needs counsel, and it must come from those who have passed through somewhat similar experiences, and are therefore sympathetic; on the other hand, it must not be too exact or it will check and stunt the spontaneity and individuality. The supervisor must realize that his function is to seek out the good and make that good prevail, to make it clear that professional training should be a never-ending process, and not merely a more or less disagreeable means of entrance to a profession. Practice teaching conducted in this manner is every whit as educative as the laboratory exercises in connection with our physical and natural sciences. We do not make chemists nowadays by mere text-book study, nor do we depend upon lecture demonstration by the professor alone—although that was a step in advance; we allow the student, after having studied the text-book and having seen the professor perform a similar experiment—nay, more, we *require* him—to make experiments for himself, noting carefully all conditions, and weighing as carefully all results. Shall we then be scientific in our methods of dealing with material things and neglect the scientific and rational method in dealing with human beings! And yet the method is not everything; in fact, it is a dangerous fallacy in some cases, and a man may no more become a teacher by simply handling children and text-books in a class room than he may become a chemist by handling bottles and liquids in a laboratory. The essence of practice is progress.

MODERN LANGUAGE SECTION.

THE TASK OF THE TEACHER OF MODERN LANGUAGES IN OUR SECONDARY SCHOOLS.

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Before attempting to discuss what should be taught by the teacher of Modern Languages, we must have a clear understanding of the purpose in teaching them. Is the teaching of Modern Languages in our Secondary Schools an end or a means to an end? Do we teach them for the mental discipline they afford? Do we teach them that the student may be able to understand and appreciate their literature? Or do we teach them that the students may be able to speak them and use them as vehicles of thought, and understand them when spoken? Some may answer that the purpose is a mixed one, combining all of these. Could the teaching of them not be defended on any one of these grounds? Some may answer this in the affirmative, but to me it seems that the day is past when we should try to defend the teaching of them for the sake of any one of these. Any subject may be made a means of mental discipline if properly taught; hence no subject has a right to a place on the curriculum for that reason alone. The practical benefits accruing from the study of a subject have in many cases been overestimated, and in this practical age there is a tendency to overlook that phase of the subject which cannot be estimated in dollars and cents. However in the study of Modern Languages we have a subject which should appeal to all classes, from the fact that it not only affords a good mental discipline, but it gives a training in the humanities, and has as well a practical value which may be estimated frequently in dollars and cents.

But the teacher should examine the question closely, and see clearly the bearing of each of these reasons. Which is of the most importance? For on his answer to this question will depend the method he employs and to a large extent the content of his teach-

ing. If we emphasize the mental discipline, the old methods will answer our purpose and most stress will be placed upon the grammatical forms, constructions and distinctions, for in these the powers of observation, comparison and discrimination will be largely brought into play.

If we emphasize the training in the humanities the tendency will be to rush into the study of the classical literatures of these languages, and the vocabulary acquired will be not the vocabulary of everyday life—the practical one—but the literary one, and the student will remain ignorant of the simple conversational idiomatic constructions which are so necessary in the practical use of a language. And lastly, if we lay stress on the practical phase of the subject the teaching will begin with the vocabulary and idioms which one is going to meet with in every day life, and gradually lead up through that to the mastery of the literary language and incidentally the mastery of the grammar, but this last will not receive the major stress.

Modern Language teaching has been passing through what, I suppose, might be called an evolution. And as in most other departments of knowledge, the theory has often outstripped and anticipated the facts. Germany, of course, has led the world in the matter of Modern Language teaching. It is said that one of the old official German regulations contained the arbitrary statement, "To produce fluency in conversation can not be the mission of the school." It is perhaps pertinent to ask have we advanced beyond that view? In Germany to-day the methods and aims of Modern Language teaching are conceived to be totally different from those which mark the teaching of the ancient classics. The supreme idea is to teach the pupils to enter into the spirit and life of the foreign people, and to this end they are taught to read, to memorize, to speak and think in the foreign language. This, it is claimed, will exert an important and peculiar influence in the development of the child's intellectual power. It will give his mind a versatility which the old method can never accomplish. It will develop a productive ability, and an ease in manipulation of the language which was always lacking, when the old method was employed. Formal translation is abandoned. Formal grammar is not the beginning of the study of the language, and is not the end, but incidentally it is introduced as a means to an end. Some go as

far as to say that written work shall not be assigned to be done at home. Some would teach the beginning of the language entirely by phonetic characters. A divergence of opinion prevails in regard to nearly all methods, and it is well that there should be some diversity of view, for that means that the personality of the teacher is allowed to assert itself. The best results can be obtained only when the teacher has made the methods his own so that he can adapt it to the different classes—different in regard to their capacity and degree of advancement.

From my own experience I am largely in accord with the view that the pupil should be brought directly into contact with the foreign language at the very outset, and that he should be taught mainly to construct his own grammar, the text-book in grammar serving as a means of unifying and assisting his knowledge. This will necessitate a language book at the outset which will be simple, which will not contain too many irregular verbs or too many difficult idioms. Such a book can be secured, and such a book we need in our schools to-day. And we need it, no matter what method we may employ in teaching, for if we have an interesting book and one adapted to the wants of the pupils, methods will in large measure take care of themselves. That is, the common sense teacher will soon discover a way to make the most of the pupil's knowledge and his desire for further knowledge. But here again I should like to press the question which I raised last year,—do our present readers in French and German contribute their share, and assist the teacher as they should? If what I have said is true about bringing the pupil at an early stage into direct contact with the literature of the language, then our present texts do not satisfy the requirement. We need something simpler for our classes in the junior forms. Can we not have it and can we not have it soon? It is for you to say.

I said that Modern Language teaching had been passing through a stage of evolution recently. But there must have been a stage of devolution surely, for Ascham, three hundred and fifty years ago in England, Ratke and Comenius, three hundred years ago in Germany, advocated many of the things that are being done to-day in Germany in language teaching. Comenius published his *Orbis Pictus* and taught that we should learn a language by use rather than by rules—learn by reading, transcribing, com-

posing and talking. But this seems to have all been forgotten in the intervening centuries, for in England, and even in Germany, Modern Languages were taught according to the old grammar method up to almost the present generation.

Now there seems to be a more rational process, and the change in the process has been brought about by the change in the aim. It has been felt that the knowledge of foreign words and idioms, with their various combinations and permutations, was not enough, but that there was a spirit and a soul in a modern language, and that this soul should express itself audibly, and so the demand for oral teaching and the oral mastery of a language has been brought about.

How can the full play of emotion be brought out in comedy or tragedy without the vocal expression? It must be the goal of the Modern Language teacher then to secure for his pupils the ability to express themselves to a limited extent at least in the foreign tongue, and to understand something of that language when spoken. And this goal is not entirely beyond the reach of the teacher in the Secondary Schools, if the pupils remain until they have passed through the Fourth Form.

But the teacher's work is not done when he has taught his pupils the texts they are reading and the ability to converse somewhat about them and their content. He must teach his pupils something about the people—their country, its geography and its history. He must try to get them to see something of the spirit of the people, their ways and usages, or else what they read will often be out of perspective—nay it will sometimes appear inane. How else can a class appreciate, for instance, "Das Kalte Herz," with its references to the "Schwarzwald," and the "Aberglaube" of the people.

He must try to arouse an interest in these peoples, and then satisfy that interest by feeding it on well chosen books. Whenever I think I can secure the attention of a pupil better by this means, and it is often the case, I lend him a story in French or German to read on a Saturday or Sunday or during the Christmas or Easter holiday, choosing one that will not be too difficult for his stage of advancement, and I tell him, "read along, never mind looking up the words you don't know, unless you fail to follow the thread of the story." It creates an interest, and it gives a facility in getting at the meaning of what he is reading, so

that there is no danger of him giving you a stupid or meaningless translation. And these two results, in my opinion, are very important ones. I do not think we need be afraid of slipshod work if we proceed in this way. The stimulus of interest will induce the student to get at the real meaning, and his appreciative faculties will be so aroused and made so alert that what may be lost in failing to look up the exact shade of meaning in the dictionary, will be more than made up in the wider grasp which he takes of the whole situation. That the teacher may be able to do this, he must read himself, and know what books are available and suitable for his pupils, and his own intellectual life will be stimulated by so doing, and it will relieve somewhat the monotony and drudgery of schoolwork.

It is also a duty which the teacher owes to himself that he take some magazine or newspaper in these languages, and thus he will bring himself directly in touch with the language of to-day. Furthermore, it is absolutely necessary that at intervals he live among the peoples who speak these languages, for the work in the school is not sufficient to keep him bright, and his tongue nimble—so much of his work being elementary and so much necessarily directed toward examinations. For fight as we may against it, the nature of the examination has a considerable influence on the work done in the classroom.

Then, let me say, that we must inspire the student with a living interest in a living language. This can be better accomplished by bringing him in direct contact with the language as early as possible, and by endeavoring to get him to make it a vehicle of thought—even if, as it necessarily must be in our Secondary Schools, within a somewhat limited range.

Now, I wish, though, to emphasize the fact that over and above all subjects taught the teacher must not forget that he is training minds. As Dr. Thring has said, "The teacher's subject is mind, the lecturer's subject is books." We, as teachers, in the Secondary schools are dealing with young boys and girls in their plastic years. And as Dr. Thring has again said, "The boy mind is much like a frolicking puppy" and the teacher's duty is to train and discipline that mind as well as to instruct. And whether we are teachers of Modern Languages or what not, it surely is borne in upon us every day, as we read the daily press, that the foundations of good citizenship are not laid wide and deep enough. We

must train pupils to be self-reliant, thorough and perfectly honest, capable of forming an honest judgment on whatever subject may come before them. It is not so much a matter of giving them information as stimulating them to independent thought and inspiring them. And we as teachers of language and literature have this opportunity. It must be done perhaps more implicitly than explicitly, but our whole duty is not performed unless we consider this phase of the question.

In conclusion, as to the practical value of a knowledge of French, may I read to you what some of you may have seen in print, an article by Ella Wheeler Wilcox. Since she is not a teacher the opinion will be wholly unbiased:

STUDY AT LEAST ONE FOREIGN LANGUAGE.

More and more, as I travel about the world, I realize the mistake our American parents and our American school system are making in their methods of education.

Thousands of children are wasting precious hours on the study of drawing, but possess not the least ability in that line; others are given rhetoric and composition, botany and anatomy and a smattering of languages and never make use of any of these studies.

All this broken time on useless labors might better be applied to the thorough mastering of some one language besides English.

I am acquainted with hundreds of young women and men who have graduated from high schools, seminaries, business colleges and normal colleges. Not ten of these speak any language but English.

When the subject of languages is referred to in America to-day, the great majority of students and even educators reply that English is rapidly becoming the universal tongue.

They will tell you that one can travel anywhere and find English spoken.

As far as the actual benefit and use of the English language goes, this American statement of its universality is absolutely untrue.

I have walked a dozen blocks in a half-dozen cities in Holland and Belgium and addressed a score of people before I found one who could speak or understand a word of English.

Three-fourths of the pleasure and benefit in my travels have come from the knowledge of the French tongue, imperfect as that knowledge is.

American tourists will tell you that you can get along just as well and see all the sights and enjoy all the pleasures of foreign travel without knowing any tongue but English.

Again I say the statement is most erroneous. He who imagines he has had the best of travel in this way is laboring under a grave mistake. He is like one who thinks he has dined when he has had only soup and fish.

Whether one travels for business, for pleasure or for social benefit, the best results are not obtained without some knowledge of a second language. Not only are there millions of people in Europe who do not speak or understand our language, but there are thousands who absolutely do not know what the language of America is.

A young man, a graduate of a business college in Holland, asked me if the American language was not very much like the English.

The American people who are looking for the day when English will be the universal tongue will have to wait at least a thousand years. Therefore, instead of wasting precious years on hashed up studies, which produce no beneficial result on the mind and serve to weaken the power of concentration, let our young Americans select either French or German when the mind is in its period of acquisition of knowledge and perfect themselves in that tongue.

The knowledge of a second language is highly enriching to the mind. It opens up vast storehouses of pleasure and information even in the matter of literature alone. For a young man about to enter into business it is most valuable. For a young woman it means social privileges and benefits. In travel it is the main source of pleasure and satisfaction. Of course, one can employ a courier, if economy is not to be considered, who will act as a mouthpiece and interpreter. But a courier can be a great nuisance as well as a great helper, and there are a thousand and one situations in travel where a courier is not obtainable or admissible.

To all parents ambitious for the education of their children I would urge the matter of languages. Encourage and stimulate your children to master some tongue besides their own. A stenographer who is able to write and read French or German, Italian or Spanish, is a great assistance to large business houses and can command an excellent salary. In every position life presents to the young a knowledge of two languages will prove of inconceivable value. Study the language, you will live to be glad of every hour so applied. If you can study but one, select

French. It is the court language of the world. It is spoken by the majority of educated people in Europe, whatever may be their native tongue. Where one person of education in Holland and Germany speaks English, one hundred speak French.

In Mayence, Germany, a city of 91,000, few English-speaking residents are to be found. Not one American family lives in the city. Here a peculiarly important service was rendered me by an acquaintance with French phrases. An excruciating toothache seized me on the way to the city and the difficulty was one requiring a skilful dental operation. The dentist recommended as the best spoke not one word of English and I not one word of German. We met on the common ground of French, however, much to my mental and physical relief. It was one of the hundred occasions where I had cause to rejoice over the hours and years I spent in the study of French after I had reached womanhood.

The desire of President Roosevelt and Andrew Carnegie to render the English language simple and to cause it to be the "court language of the world," instead of French, will require at least five hundred years before it can be realized. If you intend to travel abroad before the expiration of that period and desire the fullest benefit from your travel, begin now to study languages.

HEINE'S ROMANZERO.

HERMAN WALTER, PH.D. (MCGILL COLL., MONTREAL).

Man hat Heines geistiges Leben in drei Perioden eingetheilt; die lyrische Periode, d. h. die des Buchs der Lieder und der Reisebilder; die journalistische Periode von der das Buch über Börne den Abschluss bildet; und die religiöse Periode, die den Romanzero zum Glanzpunkt hat. Von der zweiten Periode, der journalistischen, können wir vollständig absehen, da sie uns sehr wenig geliefert hat was bleibenden Werth besässe.

Aus der ersten und der dritten Periode möchte ich aber je ein Werk herausgreifen, aus der ersten das Buch der Lieder, aus der dritten den Romanzero, und so möchten wir zur Aufgabe machen diese beide Werke auf Gedankeninhalt, so wohl als auch Formvollendung zu prüfen, um dann schliesslich die Frage beantworten zu können, ob Heines Genie wirklich keine ernsthafte Entwicklung durchgemacht hat, ob der Dichter sich wirklich gleich in seinem ersten Werke, dem Buch der Lieder, zum Gipfel seiner höchsten Vollkommenheit aufgeschwungen hat.

Fragen Sie irgend einen Deutschen aus dem Volke was er von Heine für das in jeder Beziehung vollendetste halte, er wird, ohne auch nur einen Augenblick zu zögern, antworten das Buch der Lieder. Von Romanzero hat er gehört, er rühret ihn vielleicht; gelesen hat er ihn gewöhnlich nicht. Fragt man ihn weiter, wie er sich den Dichter des Buchs der Lieder vorstelle, so beschreibt er das Portrait von Kietz und Heines Krankheitszeit; das Bild ist also 30 Jahre nach dem Buch der Lieder verfertigt worden. Es stellt Heine dar mit gebeugtem Haupte, beinahe geschlossenen Augenlidern; ein Ausdruck des Leidens ruht auf den müden Zügen. Ohne Schwierigkeit wird die Verbindung hergestellt zwischen dem gebrochenen Herzen des Buchs der Lieder und dem Leidensausdruck des Kietzschen Bildes und der Mythos ist fertig. Dass Heine zur Zeit des Verfassens des Buchs der Lieder ein lebenslustiger, ja sogar leichtsinniger junger Mensch war, weiss der Durchschnittsdeutsche gewöhnlich nicht; und selbst wenn er es wüsste, so würde das doch dem Mythos nicht im geringsten schaden; denn wo hätte man je gesehen, dass das Volk der Geschichte zu Liebe einen einmal gebildeten Mythos aufgeben hätte. Wäre Heine nur Historiker, oder Philosoph oder Epiker, so wäre uns selbstverständlich seine Herzensgeschichte verhältnismässig gleichgiltig; nun ist aber Heine lyrischer Dichter, und

die Lyrik ist durchaus subjectiv, individualistisch; sie ist der Ausdruck der persönlichen Gefühle des Dichters; wenn sie das nicht ist, so wird die Lyrik zum geistreichen Spiel wie die Lyrik des französischen Salons im XVII. Jahrhundert.

Das Thema des Buchs der Lieder ist des Dichters hoffnungslose, unerwiderte Liebe zu seiner Kousine Amalie Heine. Dass Heine dieselbe mit der ganzen Macht seiner Seele liebte, darüber herrscht kein Zweifel; ebenso sicher ist, dass Amalie für ihn auch nicht ein Atom von der Liebe empfand, die er ihr entgegenbrachte. Nie hat sie ihm auch die geringste Hoffnung gemacht; von einem Treubruch ihrerseits, besonders zu Gunsten eines reichen Liebhabers, kann also gar nicht die Rede sein. Diese einfachen Tatsachen dürfen wir nicht vergessen, wenn wir das Buch der Leider lesen, das von so Vielen immer noch für dem Wahrheits-getiefen Bericht von Heines Leidensgeschichte gehalten wird. Im erstem Theil des Buchs der Leider beschreibt er uns ziemlich wahrheits getreu, was er zur Zeit fühlte; die Hoffnungslosigkeit seiner Leidenschaft, Schmerz, Verzweiflung, Eifersucht, Hass und schliesslich den tröstenden Gedanken, dass auch sie elend sei.

Im Zweiten Teil, dem Intermezzo erzählt er die ganze Geschichte noch einmal, dies Mal bedeutend idealisirt. Im dritten Teil säuft sein Herz wieder an zu bluten; dies Mal aber zu Gunsten Theresens der jüngeren Schwester Amaliens. Wir wollen ihm daraus durchaus keinen Vorwurf machen; im Gegentheil freuen wir uns, denn wir verdanken dieser neuen Liebe eine Anzahl von Heines schönsten lyrischen Perlen.

Was dem Buch der Lieder den Beifall des Publikums erwarb, war nicht nur die Schönheit von ihren Gedichten, sondern auch das Neuartige, das Krankhafte, die unerhörte ungezügelter Leidenschaft, die Art und Weise, wie der Dichter selbstgefällig sein Herz von dem Publikum entblösst und gewissermassen um Mittheil fleht, die Verschmelzung von Romantik und durchaus modernen Gefühlen. Nun war auch das Ungeistige, das Materialistische seiner Liebe. Heines Liebe est nicht die sanfte Sehnsucht einer selbstlosen Zuneigung, sondern eine wilde ungezügelter Leidenschaft, die wenn sie nicht erwidert wird, in Wuth und Spott ausbricht. Einige wenige Gedichte scheinen das Gegenteil zu beweisen, im Ganzen aber bleibt Heines Liebe weit hinter dem Goetheschen Ideal zurück:

“Das ist die wahre Liebe, die immer und immer sich gleich bleibt,
Ob man ihr alles gewährt, ob man ihr alles versagt.”

Man sieht mehr wie der Dichter die Geliebte des Meineids, des Verraths, der Falschheit anklagt wie er die Schlange nennt, die die Blüte seines Lebens vergiftet hat.

Auf den sinnlichen Charakter seiner Liebe brauche ich nicht näher einzugehen. Das ist zu bekannt. Ein hohes Frauenideal hat Heine gewiss nie vor seinem geistigen Auge gehabt. Wenn er die Geliebte nicht treulose Schlange nennt, so behandelt er sie als hübsches Spielzeug, Blume oder Puppe: "Mein Kindchen, mein liebes kleines Mädchen, mein süßes Frätzchen, süße Puppe." Einige von seinen Liebes-Gedichten sind ja gewiss von ganz überwältigender Schönheit, aber der Totaleindruck auf den gebildeten Leser ist meistens unangenehm; denn ein Dichter der Liebe muss erstens nach seiner Aufrichtigkeit, zweitens nach seinem Liebesideal beurteilt werden, und in beiden Punkten lässt Heine zu wünschen übrig.

Was Naturbeschreibung betrifft, so muss man sagen, dass Heine in der subjektiven Naturbeschreibung grossartiges leistet. Die Natur interessirt ihn überhaupt nur insofern er ihr menschliche Eigenschaften beilegen kann. Seine Blumen sehen auf wie Bräute, seine Veilchen kichern und kosen, seine Bäume singen. Dichter und Natur scheinen ganz in einander über zu gehen: wenn die Geliebte untreu wird, dann werden die Rosen blass, die Veilchen verstummen, die Lerchen klagen u. s. w. Die Unnatürlichkeit seiner Naturbeschreibung zeigt sich in folgendem:

"An die blaue Himmelsdecke
Wo die schönen Sterne blicken
Möcht ich pressen meine Lippen
Pressen wild und stürmisch weinen."

Sobald er anfängt die Natur objektive zu beschreiben, gibt er uns die allerbilligsten der Farbendrucke.

"Durch die Himmelsbläue
Die rosigen Wolken ziehen;
Die weissen Lämmer springen
Im weichen grünen Klee.

Überhaupt trägt er die Farben nicht wie ein Künstler auf, sondern wie ein ungeschickter Hausmalers-lehrling giesst er dem Leser ganze Farbentöpfe derselben Farbe über den Kopf:

"Mit deinen blauen Augen
Siehst du mich liebend an;
Da wird mir so traumend zur Sinn
Dass ich nicht sprechen kann
An deine blauen Augen
Gedenk ich allerwärts,
Ein Meer von blauen Gedanken
Ergiesst sich über mein Herz."

Oder :

“Lass dein weisses Herz mich küssen
Weisses Herz verstehst du mich.”

Selbst in seinen wunderbaren Nordseebildern begneigt er sich mit rothen Wolken und weissen Wellen.

Was die Sprache des Buchs der Lieder characterisiert ist die merkwürdige Einfachkeit, die oft ins Trivials ausartet. Oft ist die Sprache nicht nur einfach, sondern sogar einförmig. “Süss” kommt nicht weniger als 83 mal vor. Alles an der Geliebten ist süß: Gesicht, Augen, Wangen, Herz, Füsse. “Fromm” und “Klug” will ich nur nebenbei erwähnen. Beinahe an Schulknabepoesie erinnern alltägliche Vergleiche wie: die blauen Veilchen der Augen, die rothen Rosen der Wangen, und die weissen Lilien der Hände.

Alles dies bezieht sich auf Heines Durchschmilts-Gedichte; und zugleich darf man nicht vergessen, dass die meisten seiner Gedichte im Buch der Leider künstliche Nachahmungen verhältnissmässig kleinen Zahl derjenigen seiner eigenen Gedichte sind, die wirklich unmittelbar seinem Herzen entspringen.

Von Gedanken im Buch der Leider lässt sich eigentlich nicht reden. Heine selbst war sich der Gedankenarmuth wohl bewiesst. In einem Brief an Zimmermann spricht er auch von der “grossen Einseitigkeit, die sich in diesen Gedichten zeigt”; es seien alles Variationen über ein und dasselbe Thema: Amor und Psyche in verschiedenen Stellungen.

Wie steht es nun im Romanzero in Bezug auf alle diese Punkte, Sprache, Metrum, Aufrichtigkeit der Gefühle, Gedanken, Reichthum, objektive Schilderung?

Ich glaube, wir werden in Allen einen bedeutenden Fortschritt zu verzeichnen haben mit Ausnahme des Metrums, wo weiterer Fortschritt durch die Vollkommenheit ausgeschlossen war, die schon im Buch der Lieder an den Tag gelegt wird. Ich habe bereits die Periode die Religiöse genannt, weil Heine sie selbst so bezeichnet hat, und weil wirklich das Religiöse ihr bedeutendster Zug ist. Mit der Religion Heines ist es nun allerdings eine eigene Sache. Nachdem die Romantiker das Leben genossen, kam oft eine Büsserstimmung über die eine Reaktion der Rene die sie öfters der Katholischen Kirche in die Arme trieb, ich erinnere mich an Fr. von Schlegel, an Brentano, an Werner. Auch bei dem frivolem Spötter Heine bleibt diese Reaktion nicht aus, nur ist die Bekehrung eben a la Heine. Mit seinem Atheismus hatte er früher gewaltig geprahlt. Nun behauptete er, es sei ihm nie Ernst damit gewesen. Das Elend der Menschen sei zu gross, man müsse glauben. Wenn man auf dem Sterbebett liegt, fügt er hinzu, möchte man Frieden

machen mit Gott und der Welt. "Ja, ich bin zurückgekehrt zu Gott wie der verlorene Sohn, nachdem ich bei den Hegelianern die Schweine gehülft" Etwas störend wirkt allerdings die Ironie des Bekehrten. Dieselbe müssen wir aber bei Heine mit in Kauf nehmen. Die Ironie verlässt ihm nie, weder in der Liebe, noch im Hass, im Atheismus, im Zustande der Bekehrung, nicht einmal wenn er von seiner doch so aufrichtig verehrten Mutter spricht, nicht einmal in der Höllequal des Krankenbettes, noch in den letzten Sterbetagen. "Pouvez-vous siffler," fragt ihn sein französischer Arzt, um aus der Antwort auf den Zustand des Kranken zu schliessen. "Non monsieur," war des Dichters Antwort, "Pas même M. Scribe."

Sein religiöser Zustand war auch nicht so sehr das Resultat einer Bekehrung zu einer neuen Religion, als vielmehr einer Rückkehr zu dem höchst einfachen jüdischen Theismus seiner Jugend; so einfach war diese Religion, dass sein Glaubens-Bekenntniss, wenn es noch einfacher gewesen wäre, überhaupt aufgehört hätte, Religion zu sein.

Sie werden auch wissen, dass im Jahr 1847, für den Dichter eine beinahe 10 jährige Leidenszeit anfang; es war eine Rückenmarks-krankheit, die mit den schrecklichsten Qualen verbunden war. Heines bitterste Feinde müssen ihm wenigstens dies Eine lassen, dass er sich während der ganzen Zeit mit unvergleichlichem Heldenmuthen benommen hat. Trotz der Schmerzen arbeitete er täglich, indem er die Gedichte diktirte, die er nicht mehr im Stande war selbst zu schreiben.

Der Rückkehr zur Religion und der Beschäftigung mit religiösen Themen verdanken wir mehr als ein Drittel des ganzen Romanzero, die Hebräischen Melodien, aus Prinzessin Sabbat Jehuda von Halévy und der Disputation bestehend.

In einem andern Drittel, den Lamentationen, haben wir all die grellen Kontrasta, die Heines Werk charakterisieren: Quad, Wuth, Empörung, Rache; Ironie und Cynismus; dann wieder Lieder der Entsagung, Ergebung, der relegierten Erinnerung; Stossgebete, die ihm die Sorge um seine Frau eingibt, Klagegeschrei wie aus einem Grabe. Wahr haben auch andere Dichter die Nachtseite des Lebens in ergreifender Weise geschildert, aber es waren gewöhnlich bloss Phantasie-Hücke, nicht Selbsterlebnisse.

Das erste Drittel des Romanzero die Historien, ist hauptsächlich wie schon der Titel zeigt, der objektiven Erzählung und Schilderung gewidmet. Darunter haben wir den strengepischgehaltenen "Schelm von Bergen" und das vortreffliche Gedicht "die Schlacht bei Hastings," das schildert, wie Edith den bei Hastings gefallenen König Harold, der sie einst liebte unter den Toten wiederfindet und zur letzten Ruhe begleitet. Dann das Hohelied des Pessimismus, der ja den ganzen

Romanzero wie ein rother Faden durchzieht, die Nächtliche Fahrt. Ferner das Gedicht vom Dichter Firdusi, in dem beschrieben wird, wie der Schah von Persien den lange verkannten Dichter Firdusi belohnen will, wie die mit kostbaren Geschenken beladene Karavane durch das eine Thor der Stadt unter laut auf jubelndem Triumphgesang herein zieht, während im selben Moment durch das andere Thor der Leichenzug den Toten Firdusi zu Grabe trägt. Nicht vergessen dürfen wir hier, dem an Form und Inhalt gleich vollkommenen Asra. Dabei spukt aber auch die Romantik in grauenhaften, aber meisterhaft ausgeführten Gemälden; so die Beschreibung der Nachtsцена in den Tuilerien wo die enthauptete Maria Antoinette mit ihren ebenfalls kopflosen Damen ihren Hof hält; oder die Gespenstersцена im Nonnenkloster; oder von der Platzgräfin Jütta, die über den Rhein rudert und von sieben Leichen verfo'gt wird.

Dazu kommen sogar noch einige humoristische Gedichte wie Rhampsenit und der Weisse Elephant.

Sehr viele von den Gedichten des Romanzero sind in reimlosen Metren geschrieben, wie z. B. das bereits erwähnte "Der Asra."

Der Asra ist geradezu dramatisch aufgebaut: die Exposition in den beiden ersten Strophen, die Klimax in der dritten und wenigstens der Beweis auf die Katastrophe in der vierten. Nicht ein einziges unnützlich Wort; in zwei Zeilen ist der landschaftliche Rahmen geschildert.

Ausserdem ist die Sprache einfach ohne trivial zu sein. Achuliches lässt sich auch von vielen anderen Gedichten des Romanzero aussagen. Familiar wird die Sprache gewöhnlich nur, wo die Umstände es erlauben. So ziemlich alles, was an der Sprache des Buchs der Lieder auszusetzen war, ist hier verschwunden. In den wenigen Stellen wo die Natur beschrieben wird, geschieht das auf objective Weise und bloss um den Rahmen zu liefern. Mit den Farben wirft er nicht mehr unverantwortlich um sich und die berühmigten Heineschen Epitheta: süss, klug, fromm, etc., werden nur noch gebraucht wo sie am Platz sind; und nur ganz selten spricht der Dichter von rothen Mündchen (Altes Lied) und von Augen sanft wie Mondenschein. In Anbetracht der Umstände, in denen sich der Dichter befindet, wollen wir ihm das auch verzeihen: die Frauenliebe, die er besingt kann der Natur der Sache gemäss, ja nur eine Erinnerungsliebe sein, so dass mit dem alten Liebes-Adam auch der alte Sprach-Adam Hand in Hand geht. Noch einen Grund möchte ich an geben, weshalb ich den Romanzero über das Buch der Lieder stelle. Der Dichter des Buchs der Lieder ist mir während des ersten Theils aufrichtig, und selbst da reist er sich als sinnlicher eitler unedler rachsüchtiger Charakter; nur durch technische Vollkommenheit kann er unsere Bewunderung für die übrigen Theile des Werkes erringen; und selbst was das Technische betrifft, so wird aus dem Künstler sehr oft ein.

blasser Fabrikant, der willkürlich nach einigen wenigen, allerdings von ihm erfundenen Mustern arbeitet.

Der Romanzero gibt uns von der Persönlichkeit des Dichters eine viel menschenwürdigere, erbaulichere Idee. Wir haben nicht mehr den schwächlichen Monomanen der Liebe, wir haben einen Helden, dessen männlicher Geist über alles erhoben ist, Leiden, und Todesfurcht; und Hand in Hand mit dem Helden geht der wahre Künstler, denn alle wahre Kunst, sagt irgendwo Vilmar, ist tiefes Bedürfnis des menschlichen Geistes, nicht Spiel der Willkür. Diejenigen Erscheinungen der Poesie sind also immer die bedeutendsten und ansprechendsten, welche wenigsten Spuren der Willkür, die meisten Zeugnisse eines tiefen, reinen, Bedürfnisses an sich tragen.

*THE TEACHING OF FRENCH PHONETICS IN
SCHOOLS.*

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Avez-vous vu l'encrier de mon frère? The answer to the question whether this sentence will at the end of four or five years' teaching be pronounced accurately is in most schools left entirely to chance. I am not, of course, here referring to schools where French is taught by incompetent teachers, incompetent either through want of knowledge or want of teaching ability. But I am assuming that the teacher knows French, and has himself a good pronunciation. In nine cases out of ten the sentence will be placed before the child, and it will be told what the correct pronunciation is. First result, a vague idea in the child's mind that French pronunciation is absurd, or that the spelling is absurd, or both. With its mind in this state of suspicion, the child is then supposed to learn seven or eight entirely new sounds with the help of the ear alone, *i.e.*, probably the most imperfectly trained of its organs of sense. It is in the nature of things that in the circumstances the teacher, to save time, as he imagines, will be content with an approximation that will remain the child's standard until the child leaves school. Not that occasional attempts will not be made to bring about further improvement, the same mistake being corrected right into the fifth and sixth year of the child's study of French with the net result that at the end of the sixth year the child's French sounds (almost every one of them) will at best be only approximately correct, and in the majority of cases not even that. Not only is the result poor, but positive mischief has been done besides. There has been great waste of time; the child has been irritated, the teaching has been interrupted, often with fatal result, by the correction of the pronunciation; mistakes that were thus carried into the fifth and sixth year have become fossilized, and are henceforth almost incorrigible; and last, but not least, the children's imperfect pronunciation is bound sooner or later to react on the pronunciation of the teacher, unless the teacher happens to have exceptional opportunities for counteracting the power of the evil influences surrounding him.

Very often I am afraid the teacher is a fatalist, and repeats parrot-like the saying, that English people are no linguists, and cannot get their tongue round those foreign sounds. My own

experience has convinced me that this commonly accepted statement is not even a half truth, being barely a tenth or twentieth truth, if not altogether unworthy of credence. But it is quite worth our while referring to it in passing, as the moral effect of this axiomatic lie is bound to be very serious. I am sure that the principal thing that kept mankind so long from sailing round the world was not the want of ships, nor the want of enterprise, but simply the settled conviction that it was impossible.

Now, the question may fairly be asked: Apart from the educational aspect of the question, the desirability of strengthening the habit of accuracy, of training the ear and the rest of the considerations already referred to, does it really matter very much whether a person who speaks French with fair grammatical accuracy has a good accent or not; the idea being, I suppose, that the great thing is after all that the speaker should make himself understood.

To begin with, I hold that if your only object is to make yourselves understood, pronunciation is far more important than grammar. Let us take the sentence I gave you at the outset: *Avez-vous vu l'enerier de mon frère.* Say it in two ways, first with abominable grammar but good pronunciation, secondly, with the perfect grammar and the pronunciation defective, and you will have no difficulty in deciding which is the more intelligible. You see that if being understood is all you aim at you may confine yourselves to the teaching of pronunciation, and your pupils will be delivered from the nightmare of grammar.

Then I can assure you that a good number of your pupils would have considerable difficulty in making themselves understood. I have a fair amount of experience in making out almost any kind of French, yet our First Year students often nonplus me with sentences which turn out to be perfect in point of grammar, but were rendered unintelligible by one or two mispronounced sounds. And, if this happens in my case, what are the chances of the average native of France, who only knows ordinary French and who has never studied potential French!

And, now, I am prepared to go further and say, that not only should your pupils' French be intelligible, but the pronunciation should come within hailing distance of perfection.

Your pupils learn French either to teach the language, in which case I need not insist on the desirability of approaching as near the ideal as possible; or they acquire the language for business or

other practical purposes; or they look forward to the study of literature.

In the case of the business man I should say that, other things being equal, the man with a really good pronunciation has a better chance of conciliating the favor of his interlocutor than his rival with his bad pronunciation which, besides rendering his French unintelligible, is apt to excite laughter, pity, contempt, and even suspicion, for the foreigner, *i.e.*, the man who is obviously, obtrusively and painfully foreign, continually runs the risk of being treated either as a child or as a rogue. And it is just as patent a psychological fact, that when we hear a foreigner speaking our language with some degree of perfection, we feel flattered and are apt to be predisposed in that man's favor.

As for the third class of pupils, those who desire to study French literature, their need of a perfect knowledge of the phonic character of French is even greater; for the study of literature, especially the poetic portion of it, without a thorough practical knowledge of the sound of the language is to my mind a chimera. The student of the classical languages labors under the disadvantage of not knowing the exact pronunciation of the languages he is studying; this is more painfully obvious with regard to Greek. When he, therefore, works himself up into raptures over the beauty and the harmony of a given piece of Greek verse, his enthusiasm is either rank hypocrisy or the result of auto-suggestion.

As the result of our imperfect method of teaching pronunciation, the case of our students of French literature is often no better; but there is no excuse for it, as the right pronunciation is within reach of everybody. I hope I have said enough to show the importance of perfect pronunciation and incidentally, the unsatisfactory character of the old method of teaching pronunciation. With regard to the latter my complaint is a two-fold one:

(1) Owing to its want of finality, it is irksome to teacher and taught; irksome throughout.

(2) The ear alone is appealed to; but the ear is quite unfit, at least very often, to be judge.

The first complaint is easily settled. Make sure of the pronunciation the first year. As for the second, try another method. An exposition of what is done in Germany and a few schools in England will show, how the double remedy is applied.

We assume, of course, that the teacher who takes the Begin-

ners' Class is competent, *i.e.*, has himself not only a good pronunciation, but also a well-trained ear and a knowledge of physiological phonetics. During the first ten or twelve weeks he will use no books, certainly no books printed in ordinary script. If books are used at all they will be in phonetic script, in which each sign stands for one sound only. The beginning of each lesson will be devoted to the study and practice of one sound of the language; the physiological difference between the French sound and the corresponding sound of the mother tongue is explained, ear, eye, sense of touch being constantly appealed to. The order of the sounds will be, pure vowels, nasal vowels, voiced consonants, then voiceless. There will thus be regular, intelligent sound drill at the beginning of each lesson. The remainder of the lesson will be given up to simple oral work; naming common objects, easy phrases, tenses of common verbs, a few songs.

The fundamental principles of the method are:

(1) The ear, being in many cases untrained and in almost all cases unworthy of the unlimited confidence shown to it in the past, is controlled by the other senses and a knowledge of the physiological process.

(2) Simple phonetic script (one sign for value) is used for what reading is necessary until the sounds are thoroughly mastered.

(3) There is daily phonetic drill. (The transition from phonetic to ordinary script is much easier than is imagined.)

Wherever the system has been tried by competent teachers, it has yielded great results; but the teacher must be competent, trained. The best teacher in the school ought invariably to take the Beginners' Class.

In Canada something has already been done to introduce the new system. The pioneers are undoubtedly Professors Fraser and Squair with their admirable phonetic introduction to their Grammar, and I understand that the teachers in training at Hamilton receive a certain amount of phonetic instruction. For the last three years phonetic training has been given to teachers in connection with the French holiday courses held at McGill University, and during last winter the teachers of Montreal had an opportunity of acquainting themselves with the new method with the satisfactory result that next winter the phonetic method will be applied in the beginners' classes of all the Protestant Public Schools of Montreal.

THE EDUCATIVE VALUE OF THE NOVEL.

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I have selected this subject, because it appeals to me from personal experience, and I have approached the subject with a certain confidence, not that springing from a sense of superior knowledge, but the confidence that proceeds from the conviction that what is to be said is all based on reality as far as I know it. My views concerning this subject may be commonplace, shallow, exaggerated, untenable, in your opinions, but at any rate they spring from genuine personal conviction, based on my own individual experiences. In as far as my experiences are typical of the average man's, and interpreted correctly, these views may be of some value. Some years ago, I would have stated my opinions as universal laws, now, I simply give them as my own.

I have always been a reader of stories. With a slight call upon my memory, I can reproduce the pleasures that were mine when, as a child, I was translated into the land of enchantment, where giants, fairies, and magic castles abounded. As time went on and my tastes naturally changed, fairyland lost its charms. The era of "Robinson Crusoe" arrived, the tale of adventure engaged my attention, and I became absorbed in hairbreadth escapes by sea and land. Then the cheap sentimental novel had its hour, though I always had an uneasy sense of degradation in reading such. Last, but not least, I made the acquaintance of the good old novel, the Dickens novel. I can remember, as if it were yesterday, my impression on reading "Oliver Twist," the sense of wholesome pleasure, of mental and emotional elevation, the conviction of reality, and yet something better than reality. Ever since that early time, I have read the great novels, and I feel indebted to them for much of my development of mind in as definite a way as I feel under physical obligations to the air and sunshine.

As time went on, Thackeray appeared on the horizon, and seemed to me one of the brightest luminaries in the literary firmament. I can distinctly trace his influence both in my mental outlook, and my style. "Vanity Fair" was a revelation

in the way of realistic creation of character, and it seems to me that an interest in human character and life, in its reality, was born at this time, an interest that has grown and flourished ever since that humble inception. Dickens and Thackeray made a profound impression upon my imagination by continued cultivation of their novels, and assimilation took place to such an extent that insensibly the content of the novels was made part of my permanent mental equipment, and the conceptions of character and life found in these novels were applied to real life, and verified or contradicted by actual experiences. Scott's best known novels played their part in my youthful education, and on analyzing their influence upon me, I feel conscious that with them was kindled an interest in romantic history that has never left me, and at the same time, a familiarity with the great historical epochs that has been of exceeding benefit ever since. They gave me a vivid realization, a personal consciousness of the life of the past, that no formal history could have given. Lytton's stately, if pedantic, novels had an elevating and refining effect, a tendency to lift the mind above the sordid. These stately Maltravers and Darrells, with their dignity and loftiness, took one into another world, and even if one smiles now at Lytton's extravagance and transcendent mystery, yet it is a kindly, indulgent smile for the sake of youthful memories. I remember vividly the impression made upon my imagination by the lofty and noble characters found in "Night and Morning," and "What will he do with it." When I review my own experience with the good old classic novels, I come to the conclusion that they influenced my thought and expressions far more than my formal studies as a boy.

If true wisdom of spirit, breadth of mind, knowledge of life, and accompanying refinement of expression are necessary, one must go to the true source to get them. Actual living will contribute, but will not accomplish much alone. The actual life of the individual is in most cases so narrow, so material, so commonplace, that of itself it furnishes but few of those higher thoughts and feelings from which culture springs. The sublime elements of life lurk below the surface and appear only occasionally under stress of strong stimulation. So much of our life is taken up with the common, sordid needs, and trivial interests that the nobler elements seem to lie latent, until conjured up

by extraordinary conditions. Not only that, but nearly all are loath to manifest the higher forms of spiritual activity. Most people shrink from deviating from the path of the commonplace, either in idea or form, from giving voice to any but the ordinary phrases of spiritual life. Hence there is not any adequate source of culture in life alone, in living in human society.

We must turn to literature. Here the trammels of ordinary common life are removed. The man, as author, gives expression to the great and sublime ideas that he buries in his heart as a private individual. He lays bare the great sources of noble and lofty ideals, and all who desire culture may drink at this spring. Not only are these ideas revealed without reserve, but the men that reveal them are the greatest men, and have the greatest messages, and the best mode of expression. Even if the man beside one in the street were willing to express his best spiritual life, it likely would not be of very great value, compared with the message of good literature.

Hence the best literature is the true source of culture. But all will not read the best, and it is almost useless to try to force the reluctant mind to read when his own inclination turns aside. Very few people read the works of great genius, the poetry of Shakespeare, or Milton, Browning, or Tennyson. Very few read the great essays of Ruskin, Carlyle, De Quincey, few read the lighter essays of Lamb, and Macaulay, or even the popular efforts of Jerome K. Jerome. If few adults of the average type read the greater productions, what chance is there for inducing raw high school students to choose from pure inclination such works. You may make them read such works by prescribing them for examination, but in most cases there is no innate liking, the liking that will make these forms of literature a means of culture. I think then, in most cases, the culture that comes from literature will not, for the common average high-school pupil, come from great poems and essays. The reading of such is not extensive or continuous enough, and is not attended by that highly necessary liking which leads to assimilation, and it goes without saying that assimilation of the great spiritual principles of good literature must take place, if culture is to result. Otherwise mere book knowledge of what lies outside of one's daily, mental conscious life is all that is obtained; that mere superficial, mechanical knowledge that distinguishes so many college-

bred students, that knowledge that has not been personally realized in such a way that it moulds and cultivates the mind, that it gives different conceptions of life, and influences daily habits.

It may seem a daring heresy to state that the great masterpieces do not exercise an elevating influence upon the students who con them over. But I must lay stress upon the fact that I am considering, especially the average type of high-school pupil, the one who does not supplement his high-school education by a college course, but who attends a high-school for two or three years and then betakes himself to business. And remember this type constitutes the great majority of Canadian citizens, the bone and sinew of the nation; and it is important that their education should be so regulated that the maximum degree of culture may be reached, possible under the circumstances. The clever boy, whose name is associated with a university career, even if he realizes, only in a crude way, the meaning of true culture, has another chance, in a broader field and with greater powers, to gain some sweetness and light. But for so many, the high-school is the only training-ground, the matriculation examination is the remotest goal of all scholastic ambitions. This average Canadian boy, the embryo citizen, should, so far as possible, fall under the broadening influence of culture, even in a humble way. If it is impossible to reach such by the lofty and great messages of the giant spirits, other humbler ways should be used. If from lack of time, and from nature crudity, the son of mechanic, farmer, business man is not assimilating the ideas of great literature, then his attention should be turned to other forms, deficient in the sublime wisdom of the masterpieces, but possessing sane thought, fine feeling and noble ideals. A liking may be cultivated for a lower kind of literature, from natural affinity, when often the loftier creations remain sealed books for lack of due appreciation.

I would not have it understood that for the average, common pupil I would recommend the disuse of great poetry and prose, the best we have. It is to be hoped that some parts of the message will appeal to even the dullest, that certain elements will percolate into the recesses of the soul most hardened to spiritual influences. All one can do is to present literary truths as clearly and as forcibly as lies in one's ability, and leave the rest to individual action. But even though a teacher hopes for beneficial results

from presenting great literature of the highest type, it is beyond probability that in many cases, there will be engendered a genuine and active love for these high forms of thought. Very few average men continue the habit of reading poetry, followed only in a desultory and careless way at school, into after life. Hence great poetry and prose do not bring to bear their noble influence upon the daily life of individuals of this kind, for lack of continued cultivation.

Then, let me refer to a form of literature of a low enough kind to appeal to the commonplace man, and to attract him naturally and thus to become habitual and influence his life. Yet on the other hand, possessing elements beneficial enough to justify cultivating it extensively, elements that make it mental food of a nourishing character. This form of literature is the good novel, with a double emphasis on good.

The reading of novels may be promoted side by side with that of great poetry and inspired prose. All the more easily now, because there is definite provision made for supplementary reading in the educational system. According to this regulation, as you know, so many good books must be read during the year, over and above the prescribed texts. This provides an opportunity for enforcing the reading of standard novels; for it gives a teacher the sanction of departmental authority; before this, his exhortations to read good standard novels often fell on unheeding ears. Now it is compulsory, and it is easier to impress upon the pupil the advisability of reading certain books outside of the prescribed class, when it has a bearing on his examination standing. A great portion of this supplementary reading may consist of novels of different kinds, representing different departments of thought, as, History, Biography, Fiction. This new regulation concerning supplementary reading gives a teacher a good opportunity to encourage the reading of a form of literature in which it is comparatively easy to awaken natural interest of such a kind as to lead to highly beneficial habits.

One may smile at the necessity of stimulating a desire for fiction in these days, when thousands of novels find multitudes of readers among mere boys and girls. But let it be borne in mind that this systematic novel reading, promoted by the school, must be confined to standard novels of unquestioned merit, of established reputation, and of ripe years. Many teachers may favor

including the recent novels in the list, but it seems to me that these novels are likely to be read anyway, and that average pupils are woefully ignorant of those great efforts of the famous novelists of some years back. In my opinion, the old standard novels, with the stamp of undeniable merit, have the greatest culture value, whether we consider the inward spirit or the outward form of culture. I may be unreasonably partial towards the old novels, but their scope seems greater, and their tone loftier.

Recent fiction is of dwarfish dimensions compared with the colossal proportions of the productions of Eliot, Scott, Dickens, Thackeray. Many may object that these old novels are antiquated, out of fashion, and assert that it is natural for young people to choose novels of their own time, written by the novelists of to-day, picturing the conditions that prevail at present, and not those of years ago. There is likely more piquancy of interest in reading the exciting experiences of an automobilist in touring Europe, than in the escapades of Pendennis, but there is not the educative value, and I am considering novels from that point of view. And though the interest, at first sight, may be greater in a latter day novel, though the situations may be more exciting, and the conditions more subtle and complicated, yet these highly spiced productions have not wearing qualities, do not possess permanent excellence, do not stand a second reading. Their tinsel will not endure the action of years, will not defy the tooth of time. There is some serious weakness in a book that does not invite a second reading, there is some lack of power, depth or truth, if one feels no desire to turn the pages at least a second time. One of the claims of the old classic novels is that one returns fondly to them to review scenes, events and characters that familiarity only endears. The tendency is for books that get a second reading to lay hold of the mind and influence the character. And that is the much desired result to which I point in my advocacy of good books.

One of the most significant features of the old novels is that they seem to intertwine themselves with the mental life, to mould the opinions, to influence the feelings, to shape the thoughts, and, in a word, to stay at one's side like old friends. The spirit of a truly great novel is capable of being assimilated by the reader's spirit, and able to exercise a transforming influence on thought and action. In order that a book may accomplish this, there must

be some sound, genuine, permanent qualities that are proof against the attacks of time. They must be founded on the rock of human nature, and they must be the product of great creative genius, that understands how to interpret and idealize genuine human conditions. It stands to reason that a book that influences the life will be read again, a literary creation that speaks eloquently to the heart will not be forgotten. I make this claim for those old friends that are being slighted in so many homes, that are being decried as superannuated. Once read, they invite repeated reading, they retain the freshness and beauty of perennial youth. They do not solicit attention with the meretricious, gaudy charm of an ephemeral, freak novel, but they win it by an appeal to normal, human interest. If a boy reads the good old novels, faithfully and seriously, the chances are that he will form the habit, and persevere in this pursuit. But very few become enthusiastic over Dickens, Eliot, Thackeray, Scott after that receptive time. The golden opportunity is lost when school-days are over, and a sense of wholesome pleasure, and sound instruction is missed. Hence I claim that there are qualities in the old novel so commanding in worth and nobility that the tendency is to make habitual readers out of occasional, and in this way to accomplish good by continued application.

As already said, these novels are full of interest, of a normal, wholesome kind. But the interest must be won by some assiduous effort of mind and heart, by concentration of attention and analysis of ideas. The interest is not patent, conspicuous, flaunting, rendered so by unnatural, extravagant devices, as in many recent products. The interest of plot, character, thought, in the old novel, is a matter of natural, gradual development, growing and ripening in the fulness of time, obeying the deep, true principles of normal human life. Such a novel requires care, patience, thought on the part of the reader, but his close attention is rewarded when he reaches a natural and satisfying climax in the situation. On the other hand, many recent novels revel in odious abnormalities, incongruities, lurid surprises, forced rank growths that vitiate the imagination as an injurious drug, and give the young, distorted, false ideas of life, make them look at it as an extravaganza instead of a serious drama. For such novels instead of branding their creations as diseased, abnormal, found only in polluted conditions, represent them as natural, common

and usual. It can easily be seen that youth poisoned by such drugs would naturally find novels based on what is true, normal, wholesome and sweet, unutterably tame, dull, void of striking situations and interesting personalities. In very truth, many public libraries are but intellectual saloons, and the unhealthy stimulants found there fill the imagination with feverish, heated pictures.

If one says that these fevered creations reflect the time, are in harmony with modern tastes, and satisfy restless, roving mental tendencies, ever desiring unnatural fluctuations of action, and abnormal inconsistencies of character, then I must say that in so far as such is the spirit of the age, there is depravity of taste, and it is time to put back the clock. Such taste in novels is in line with frenzied finance, rapid speed mania, the absinthe habit. That is the basis is an unnatural desire to deviate from the normal laws of life. The influence of these freak novels is distinctly hurtful to the young, whose tendency to laud the abnormal as the heroic is unchecked by experience and judgment. The desire for unhealthy sensationalism is growing, because the passion is being nourished from so many sides. The stage, to a vast extent, encourages this tendency, by the morbid, unwholesome elements of many modern plays. Modern social conditions feed this appetite by artificial feverish amusements placed at the disposal of flighty, giddy boys and girls without let or hindrance. This craving for sensation is gratified on all sides, and unless some corrective tendencies are set up, the character must suffer lamentably. I know of no antidote more effective than sound, wholesome literature, with an element of normal repose, fine balance, general healthiness which act on the spirit as the evening breeze refreshes the body after the vitiated atmosphere of a close ball-room.

In these days, when youth receives so little direct moral teaching, when the distinction between right and wrong seems confused and hazy, when old religious convictions are losing practical influence on conduct, when business expediency is set over moral ideals, we should shun agencies that weaken moral fibre still more. Many of the modern novels, present day productions, minister to baser instincts and set up an unhealthy craving for the sensational and abnormal.

Again a great number of recent novels, though mor-

ally unimpeachable, are so largely deficient in intellectual qualities that but little effort of mind is needed to grasp their context. If novels are to have much culture value, they must call into play the reasoning faculties, the intellectual powers. Contrast in this respect a pretty little novel of the day with one of Eliot's, Thackeray's, Lytton's. What a difference in the mental effort required to realize the trend of these last compared with the slight call upon the intelligence made by one of Ralph Connor's. Young people can skim through many bright novels with scarcely any serious thought; all that is necessary being a slight activity of the fancy. This kind of thing has but little value from the point of view of mind development. The situation is changed when it is a question of a good old novel of breadth and scope, and sufficient depth to demand an honest exercise of thought. If one reads Eliot's "Mill on the Floss," he must ponder over it or miss much of its value. If Lytton's "What Will He Do With It" is the case in point, these serious thoughts, complex situations, moral perplexities cannot be hurried over with languid and indolent mind. The mental powers must be alert, the logical faculties must be active, for the mental content of the good old novels demands activity of mind, not merely inflamed imagination or tender sentiment.

In encouraging the young to read the classic novels, one will have some difficulty along the line of intellectual content. A boy or girl accustomed to the light novel, demanding but slight mental effort, recoils dismayed when he has to read a novel containing some kind of serious, progressive, mental development, and calling for some degree of close attention and honest effort on his part. A great tendency of the age seems to eliminate healthy personal activity, physical or mental, from different kinds of entertainment. In order to be pleasant, the amusement must be stripped of features that call for activity. Hence motoring has largely superseded bicycling, rowing and walking, the pianola is supplanting the piano, the theatre, the public lecture. This is strikingly conspicuous in the popular novels. These novels that are most in demand, require, as a rule, slight exercise of thought, they flash sensational pictures upon the imagination, that stimulate automatically. People read nowadays, not to learn, but to be entertained, and they select that which requires a comparatively feeble effort, just as a tired business man goes in the evening to light

vaudeville. Hence he who refers with pride and gratification to the reading tendencies of the age, little realizes that much of the reading done is no more like really beneficial reading than twirling one's thumbs is like painting a good picture. Minds are preternaturally active in making money and "having a good time," in its vulgar sense, and extraordinarily languid in assimilating good literature. It is surprising how few read anything but the stories in magazines, or how few pluck up courage to read even a common editorial in a newspaper. Hence a teacher must encourage the debilitated minds, fed on pap, to grapple with the problems and situations of a good novel, and slowly work their way in orderly progress to a natural conclusion.

Many novels of the day are tinged with moral laxness, cynicism, indecision, irregularity, and must have a deleterious effect on these immature minds that feast on them. After a book like the "House of Mirth," David Copperfield acts like a tonic, it clears away the murky mists of dull sensuality and gross immorality like the sunshine. A healthy mind should not revel in the analysis of the hateful, abnormal conditions of a class of gross creatures where undisciplined minds and rampant senses are degraded below the animal by unlimited means of self-gratification, and by absolute lack of wholesome activity. One of Dickens' novels fills the mind with a realization of flowering virtues, and a modern society novel suggests festering vices. One of Scott's romances presents characters, absolutely healthy, normal, sound to the core, even if intellectually shallow, while Eden Philpots gives us moral degenerates. Some may say that the presence of the novel is the artistic and not the moral, but a life story must be moral, and a novel of any power must deal with that ordering of a man's life called morality, those noble principles which raise man's nature above the beasts. Not narrow, dogmatic, conventional morality, but generous, comprehensive spiritual laws, that make the life story beautiful, the kind of ethics that are found in Dickens' "The Tale of Two Cities," and in Eliot's "Adam Bede." The older one gets, the more he realizes the necessity of cherishing some definite, clear-cut moral ideals, and one may stimulate and encourage these working moral principles that are absolutely essential to social life, by losing one's self in those grand old stories. As Tennyson says, truth em-

bodied in a tale will enter in at lowly doors, and we all know how lowly the average boy's morality is, how feeble and uncertain, how apt to be moulded by passing influences, good or bad. The germ theory applies to mind as well as body.

Any thoughtful person must be aware of the necessity of knowing life, social life, the individual life, his own life. Unless one has some definite adequate knowledge of life, this world has but little meaning, and his course through it is a blind groping, an aimless wandering, a vague striving. And yet in spite of the need of some clear conception, simple as it may be, of the great principles underlying man's existence in society, and his individual nature, a keen observer must be struck with the lamentable ignorance of these laws. People may know life in some shallow, trivial fashion, may be familiar with the needs of physical life in a poor way, animal pleasures and outward mechanical processes. But they don't understand to any extent their deeper natures or their relations to others. They don't see how worthless these things often are that they are striving after, they can't see that chaff will not satisfy like wheat, that pleasures of a certain kind lead to utter weariness, that certain pursuits lead inevitably to spiritual paralysis, that certain tendencies are debasing and foolish. This failure to comprehend the best in life leads to all kinds of wrong turns and weary wanderings in the human maze. The golden fruit is past unheeded and eagerly the Sodom's apple is sought. The great novels reveal and interpret individual character and social life in such plain terms that all may learn. One may not appreciate Ruskin's ideals, but the humblest may understand Thackeray's arraignment of worldly vanities, and Dickens' burning charge against injustice and unkindness. George Eliot lays bare in convincing terms the ignorance and selfishness of man by the side of spiritual elevation and self-sacrifice. Lytton analyzes lofty and ambitious natures, repudiating the common and sordid interests of life. Scott portrays active, chivalrous temperaments, fighting their way to honor. The great novels are a fruitful source of knowledge for the student of life and character. Quite apart from moral considerations one needs some kind of simple philosophy to guide his steps, and he may find it in the masterpieces of fiction.

The ephemeral productions of the present day profess to portray life too. But so often it is a tinsel, sham life, a drawing-

room dawdling and languid love-making. Sentimentality is written from beginning to end across the pages, life is bounded by love sighs, and amorous vows. Such novels as these play the mischief with the natures of susceptible girls and make them pining sentimentalists, give them the idea that life is one continuous courting and that the husband remains the love-lorn swain for the rest of his natural or rather unnatural existence. These inanities give such a distorted view of real life in their vaporizings that they are simply ridiculous. They have not enough substance to criticize, they crumble away at the touch. They are not actively virulent, they do not poison the mind, they make it flabby. Then another novel professes to teach life, but contains only the superficial aspects, the outward events, without developing any spiritual significance. Such tales are bright, but lack moral value. Thrilling detective stories like "The Hound of the Baskervilles," remarkable tales of daring, like "Joan of the Sword Hand," and strange experiences as in "The House of a Thousand Candles." Healthy but shallow tales having little educational value. Again the freak novel claims that it interprets and portrays real life just as it is in all its vileness. But this novel is pitifully narrow in its scope, it pictures abnormal life, often unrelieved by any redeeming healthiness; in this, we find such abnormal specimens as absinthe victims, opium eaters, crazed sensualists, spirit mediums, kleptomaniacs, all kinds of monstrosities, represented as men. This is a pernicious novel, actively malignant and debasing, and is rightly called the gutter novel. There are other types, equally narrow in scope, and markedly false to life. For a true, broad, human conception of life with a healthy idealism one should turn to the old classics.

*TEACHING TENNYSON TO A BACKWARD THIRD
FORM CLASS.*

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In every large Collegiate Institute there is generally one Third Form, composed of pupils who were the most backward ones in the various second forms of the previous year. These pupils are grouped in one room for the purpose of giving them two years in the Third Form. It is at once evident that these pupils have not the same incentive to study as the pupils in the other Third Forms, namely, the examination at midsummer. Very often, such pupils think they have a year to waste, as they know they will not write at the approaching examination, and they are naturally ready to give vent to their surplus energy in some form of mischief.

Such a class is not a very desirable one, and it is necessary for a teacher to make his lessons doubly interesting if he wishes to make progress and at the same time have good discipline. Thus the teacher should exert himself in pursuing methods which will arouse and maintain interest in such a class.

Of all subjects on the curriculum I think literature can be used to the best advantage to arouse such a backward class. Not having an ulterior object in view, the examination, the teacher need not make his lesson so much of a drill. He can make less use of repetition, and is given a wider latitude. Yet a judicious teacher can cover his work just as thoroughly as if he were preparing his pupils for an examination. In teaching such a class the teacher should exert himself to the utmost to get his pupils to think, and he should encourage every effort on their part.

In teaching Tennyson to such a form, the teacher must have a thorough grasp of his subject. Then he must cast his whole heart and soul into his work to make his lesson interesting. If he does this, he will not find his work arduous, but on the contrary pleasant.

Now, in reading Tennyson, a careful student is at once impressed by the beauty of the verse, the very smooth flow of language, the fine descriptions, and if little attention is paid to

the meaning, which may not be self-evident, a certain monotony may be experienced. In fact, the mind may not be poetical enough to enjoy such verse. I have been informed by persons with matured minds that they found Tennyson monotonous. Much more then will Tennyson become tiresome to such pupils as I have described if the meaning is not made clear to them. A careful reader will generally find a hidden meaning behind this beauty of verse. A teacher, however, should be careful not to carry his explanations too far, or he may spoil the poetic conception. It is not necessary for the teacher to obtain a moral from each poem, or to moralize upon each particular passage, but I think the teacher should bear in mind Wordsworth's idea, that every good poem is didactic in its nature.

The language Tennyson uses may seem very smooth and beautiful to the pupil, but the material does not seem real. It should be the teacher's object to make this appear real, by making the various thoughts expressed subjective to the mind of the pupil; this will leave a lasting impression on his mind, and it will eventually become natural for him to enjoy Tennyson's poetry, when he sees how it can be applied to everyday life.

There are various ways of treating a poem. Some teachers believe that the only true method is to give a general picture of the poem to the pupils. If the pupils thoroughly grasp this picture first, they can then read the poem intelligently, enjoying its poetic beauty. If the poem includes historical, scientific or philosophical ideas, these should be produced in the general sketch. Then the pupils will understand these ideas, and at the same time the poem will not lose its poetical value—it will not be a lesson on history, science or philosophy. This theory might apply very well to some of Tennyson's poems, such as "The Brook." I pursued that plan in dealing with this poem and, in fact, some outline of the circumstances under which this poem was written. Some idea of the characters must be given before the pupils can grasp the meaning of this poem within a poem. I may add that the pupils never seemed to lose interest in this poem, and thus this theory worked out well in practice.

Other teachers are imbued with the idea that pupils should find out all they can for themselves, and the teacher should not tell them

any more than he is forced to do. By skilful questioning the teacher should draw forth ideas from his class, and in this way he teaches his students to think and to give expression to their thoughts. This plan I tried in connection with Tennyson's more abstract poems, such as the "Ode to Memory," and his political poems, as "Love Thou Thy Land." In fact, it would be a difficult matter to give a glowing picture of such poems, and still more difficult to impress that picture on the minds of the pupils. The difficulty in these poems is the obscurity of the passages, and it seems to me that the pupils cannot seize the salient points of these poems until these difficulties are explained away. In the first part of the "Ode to Memory," where Tennyson deals so much with the abstract, it is almost necessary to go into the details. The second part deals with the concrete, and is more easily understood. It gives us a picture of Tennyson's boyhood life, and it bears upon the first part.

Some maintain that going too much into the explanation of a passage destroys its poetical value. The teacher may take a meaning from the passage that the poet never intended anyone to take. The teacher may make the most beautiful passage prosaic, and an excellent poem then becomes nothing more than a piece of prose. There is a possibility of carrying the explanation too far, but a judicious teacher will restrain his pupils and see that the meaning can be suitably applied to the passage. It is but natural that a great many pupils may have different interpretations of a certain expression, and the best poetic ideas are often capable of several good interpretations. I should accept these if they could be applied to the passage under discussion and the teacher at least has the satisfaction of knowing that his pupils are thinking. If he gets such a class as I have mentioned, accustomed to giving their own ideas, he has accomplished much.

I make a combination of these two methods—that of giving a general idea of the poem first and then going into the poem more specifically. In teaching the poem "Ulysses," I did not give them the complete picture that the poem presented to my mind, but, after slightly touching on the Trojan war, the wanderings of Ulysses, his return home and his uneasiness with home life—in fact, after giving a general introduction I left the pupils to fill in the details as we proceeded with the poem, and enabled them to get a picture of the character of Ulysses, his lofty aims in the

pursuit of knowledge, his great age being no detriment to his noble ambition. I attempted to show the contrast presented between the life that Ulysses led and the lazy, wearisome life led by the Lotus-Eaters.

Here is optimism on the one hand and pessimism on the other. Very dull is the pupil who cannot be made to understand the tone of the two poems. Some of the passages in Ulysses I had thoroughly explained, and I introduced concrete examples to make them clearer. Then I had the passage re-read, and I think the pupils appreciated the explanations given. I believe the students carried away with them ideas which they never had before, and I think the poetic value was increased rather than diminished by the various interpretations of the passages.

RALPH CONNOR.

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There are some present in this Association to-day who vividly recall meetings of the Varsity Literary Society, made more delightful by the presence of the Student Quintette of Knox College. Tibb, Haddow, Hamilton, Gilbert Gordon and Charles W. Gordon were men well known not only in University circles, but in many outside places, as in their capacity of student quintette, they gave freely of their time and talent. When the world twenty years later discovered in Ralph Connor an author of unusual freshness and charm, a great many Varsity men felt a keen sense of pride in their personal acquaintance with him, in that sense of possession of one whom they knew.

And yet it may be fairly said that not even the closest personal friend of Charles W. Gordon can ever arise and proudly say, "I told you so." Doubtless, Gordon as little as anyone, dreamed of his future greatness in the world of books. Not for more than a decade after graduation from Knox was the preliminary training complete that was to equip him for his entrance into literature. The story of his finding recalls that of the finding of Ian Maclaren by Robertson Nicoll of the *British Weekly*. Rev. J. A. Macdonald has told it himself so graphically in the Christmas number of the *Westminster* for 1900 that I quote from him:

"One day in October, of 1896, I was sitting at my desk wondering about the copy for the November issue of the *Westminster*. That was during the perilous first year. Only five monthly numbers had appeared, and the enterprise was still an experiment. The door behind me swung wide open and a clear cheery voice, with a low, musical note in it, rang out in a familiar salutation. I knew the voice and was glad to welcome the man. He had been my class-mate at College, my seat-mate in the lecture-rooms, and we had sometimes done what was called "study" together—a night or two before examination. I knew him well, and to know a man of his kind is to like him. His is a rare good kind.

"But he was not in a good mood that day. He had been at a meeting of the Home Mission Committee, where he and the veteran Superintendent from the Northwest, his leader and saint, had been pleading for more men and more money to meet the

needs of the plains and foothills and valleys and mountain camps in the great Canadian West. Plainly he was not pleased with the results, and in terms not found in standard literature in the East, he railed against the narrow views and slow hearts and general unfitness of Easterners. It was not hard to listen, for this youthful accuser of the men of the East had seen things with his own eyes and heard sad stories with his own ears, and had withal a heart to feel. He had been in the West for several years. I had seen him up among the Selkirks. The burden of the men in those hard places was heavy on him. He could not understand the unwillingness of men on the committee to take and hold the strategic points. 'But you can hardly blame them,' I ventured, when he had made out his case and paused to think about it. 'They do not know. They never saw the West. When you talk of plains and mountains, and all that wild life, it is nothing to them, for it is not real.'

" 'Well, if they don't know they ought to, and it is your duty to give them the facts.'

" 'Facts count for little,' I answered, defending myself. 'You and the Superintendent and the rest have been giving us facts and figures until the average Easterner has lost count and track. There is not one thing real about the West to those who have not been there, except its bigness, not one bright spot of interest, not one vivid impression. They know nothing about life in your mining towns, and it is your duty to make them know and see and feel.'

" 'I'll give you an article on it,' he said, eager to do anything to mend matters.'

" 'Articles are no good if they have only facts and statistics and exhortations. Give me a sketch, a story, a thing of life, rather than a report. Make it true to the life as you know it, rather than to mere facts. Put in the local color. That would touch the imagination and give a basis for your appeal for help.'

" The dialogue ran on something in that fashion and ended in a promise that he would write out a story he told me one evening five years before. The story was to be complete in one chapter, and as the Christmas number of *The Westminster* was being talked about, it was to tell of Christmas Eve among the lumbermen up in the Selkirk mountains. He left for Winnipeg that day, and I turned again to the day's routine.

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“That first Christmas number made its appearance, but there was nothing in it about life in the lumber camps. As happened many times since, with the manuscripts of other writers, the copy did not reach the office until after the paper had gone to press. When it came it bore the marks of a new hand, but, like Elibu, it was full of matter. It was crammed with possibilities. But it was not good copy, not the best he could make out of his materials. It was sent back to Winnipeg with a suggestion. The result was a recasting, which yielded three sketches instead of one, each throbbing with life and pathos and appeal. When the manuscript came again to me it was in the form in which the first chapter now appears in ‘Black Rock.’

“But about Ralph Connor. We had decided upon a name for the story, but not for the man who wrote it. The manuscript reached me just in time for the issue for January, 1897. It would not do to give the author’s name, for the text of the tale might be regarded by some as out of keeping with the conventions of the clerical profession. ‘What name shall it be?’ was the question sent to Winnipeg. At the last moment a telegram came, ‘Sign sketch Cannor.’ Cannor? That would not do. That would betray the face of a mask. He must have a proper name. But why Cannor? Perhaps the operator made a mistake. Should it be Connor? More likely. But he must be given a Christian name, even though he consorts with heathen of various types. What shall we christen this new-born Canadian litterateur? ‘Frank?’ ‘Chris?’ ‘Fred?’ No, none of these would suit. Here it is, ‘Ralph.’ ‘Ralph Connor.’ And it was so. Without his knowledge or consent he was introduced to the world with that new-coined name to make or mar. When he got his copy of *The Westminster* in Winnipeg that week he turned to page 14, and saw the cross-page heading, ‘Tales from the Selkirks. By Ralph Connor.’

“What he said when he saw himself as the world was yet to know him has not been told. No one was by to hear. Something western, no doubt, befitting his new role. ‘I meant ‘Cannor,’ he wrote a day or two afterwards. ‘Ralph Connor isn’t bad—rather Irish for me, but I guess I can stand it. I’ll try to live up to it.’

“The sketches were gathered together, and some of them recast, for publication in book form. Mr. H. M. Hodder, of Hodder & Stoughton, took the risk of launching the book on the British

market. But in New York the manuscript was in danger of going a-begging. More than one of the great publishing houses, that are now hungry for Ralph Connor's copy, turned it down. The publisher in whom we had the highest hope reported that to make assurance doubly sure, he had three first-class 'readers' pass judgment on the story; their verdict was that it had too much religion in it—religion and temperance. It is interesting to recall that verdict now."

A biographical sketch of Ralph Connor can be given in a few paragraphs. His father, Rev. Daniel Gordon, was a Presbyterian minister in the settlement of Indian Lands in the County of Glengarry. The Gordons were a Highland family of Perthshire, and endowed with many intellectual and spiritual powers. The Rev. Daniel Gordon was "a man of magnificent physique, erect and muscular with dark hair and beard and flashing eye, every inch a commander." The picture in "The Man from Glengarry" in the chapter, entitled "A Sabbath Day's Work," is a vivid portraiture of his characteristics as a preacher. A personal friend of Ralph Connor says of the father: "Very conspicuous was his Highland gift of 'vision.' In preaching he saw and heard the things of which he spoke. The writer well remembers hearing him speak of the coming of the Lord to judgment, and as he told us that the chariot of the Judge was drawing near, one could almost hear the rumbling of the wheels."

Mrs. Gordon (Mary Robertson) was the daughter of a Scotch minister who settled in New England as pastor of a Congregational Church, and afterwards moved to Sherbrooke, Que. The Robertson family was a gifted one, and Mary Robertson, after graduating from Mount Holyoke Seminary accepted a place on its staff as teacher of Philosophy. Qualified by her rich gifts for any place in society, she spent a large part of her life in a backwoods district with all its deprivations and toils, but with its priceless opportunities for home-making and for personal ministration to her people. Those who knew her personally speak of her wondrous charm, her patience, her sweetness, her intellectual alertness, her fathomless faith in God, her shining face, her brave heart, all so nobly portrayed in the character of Mrs. Murray in "The Man from Glengarry."

Charles W. Gordon spent the first eleven years of his life in this eastern county, with the forests about him and the river not far away. The scenes of these boyhood days are charmingly pictured

in "Glengarry School-Days," the life and vigor of the boys, the tribulations of the masters, the stern sense of justice of the Scotch parents, their dourness and yet their passion when aroused. Removal to Western Ontario gave the advantage of a High School education, and after a brief period of teaching, the University was reached. Throughout his course, athletics, and general college life were given a good deal of attention, and in 1883, Gordon graduated in Honor Classics. After a year's experience as Classical Master in one of our High Schools, he entered Knox College, graduating in 1886. The next year was spent by the Student Quintette in Scotland, and on the continent, a year of delightful experiences.

Returning to Canada, he spent two years as ordained missionary at Banff. He had already spent some of his vacations in missionary work in Manitoba, and the Western fire had been kindled in his heart. Now, among the glories of the mountains, he steeped himself in their beauties and their messages, and his life became full of the experiences set forth with power in "Black Rock" and "The Sky Pilot." Brought into close contact with Dr. Jas. Robertson, the Superintendent of Presbyterian Home Mission Work in the Canadian West, Gordon caught his spirit and outlook and was sent to Great Britain to present the claims of this vast mission work before the churches of the Mother Country. St. Stephen's Church, Winnipeg called him to its pastorate on his return to Canada, and he still ministers to that congregation.

As has been said already, "Black Rock" was his first book, and was published in November, 1898. How phenomenal has been its success is indicated in the fact that its circulation to December 31, 1906, was 647,845, *i.e.*, at least that many copies. It is impossible to know exactly, as there have been some thirty pirated editions, but the figures available show an average annual circulation for the eight years of over 80,000 copies. There have been few books published in the world's history with such a record.

"The Sky Pilot" was published in November, 1899, and its circulation to the same date was 291,614. This story of the Foothills covered similar ground to that of "Black Rock" and much enhanced the author's fame, though in my judgment, it is not so powerful a book.

In "The Man from Glengarry," November, 1901, new ground was broken. The life of Eastern Ontario, especially on its moral and religious side, the rugged life of the lumber camps in its

power and savagery, the far-west again and its problems, these were painted with a master-hand. Its circulation has reached 289,116 copies.

"Glengarry School Days" was published in November, 1902, and has run to an issue of 110,691. These stories of school life cover part of the same ground as "The Man from Glengarry," and are charming stories. One cannot help wondering why so few stories of Canadian school life have been written. There is abundance of material, especially in the school life of the rural districts of a generation ago. Romance, humor, pathos, joy, tragedy, abounded in the daily life of those schools, and there is room for more "School Days."

"The Prospector," November, 1904, and "The Doctor," November, 1906, have some strong affinities. Both stories picture Varsity life in their early chapters, and both transfer their main characters to the great West. Both are tales of ability, heroism, self-sacrifice, and both picture the great need of the West. They mark great development in the artistic skill of the author. The story runs so smoothly and naturally, the author is so utterly inconspicuous, the characters are so real, the appeal to the emotions so intense.

The circulation of 223,265 for "The Prospector," and 194,000 for "The Doctor" (in five months), is absolute evidence of the place Ralph Connor has in the reading world. A copy of "The Doctor" is to-day in the hands of one person out of every six among the English speaking people of Canada. This fact is to me exceedingly suggestive and hopeful. The circulation of these six books, along with the circulation of the booklets, "Among the Marshes," "Gwen," and others totals over one and three-quarter millions, or almost 220,000 copies per annum. What is the explanation of this almost unique command of the reading world? An effort to answer this question has seemed to me more valuable than a study of the literary merits and defects of the various books.

The success of Ralph Connor is due to three main causes. In the first place he is a born story-teller. The dramatic gift is innate; the narrator is born, not made. The ability to live the many thoughts and feelings of widely different people is a great gift, and Ralph Connor has been richly endowed. His people are real people, and his pages are instinct with life. His style is easy, natural and at times powerful. He is a master of descrip-

tion, and uses the descriptive in nice adjustment, so as to form a fine background for the narrative, lessen the emotional strain, and yet not weary the reader. He is particularly fond of the thrilling, as witness the fight in the lumber camp, or the horse race, or the fight of Barney and Bulling, and the intensity of his dramatic description leaves the reader almost as exhausted as if he had been a spectator of the actual occurrence.

In fact it is in the appeal to the emotions that Ralph Connor excels. He is at one with Cardinal Newman in his famous saying that when men quarry granite with razors and anchor ocean liners with silk threads, then the reason will guide rather than the passions. Feeling is the overpowering element in our life, and the preacher or teacher or novelist who neglects it fails to achieve the highest result. Ralph Connor writes to touch the heart, and though there is abundance of keen intellectual power in the neatly turned phrase, choice word and keen repartee, the heart thrill is the dominant quality.

A second cause is his use of first-hand material. Doubtless Ralph Connor could be another Charles Major and take us into the mingled past of history, tradition and imagination, and have us walk among the beautiful and the brave of Merrie England or fair France. Fortunately, however, he has confined himself to his own land. His home and school life, the experiences and traditions of the eastern and the northern parts of the province, especially the lumber regions, old Varsity days, and the western land with all its wizardry of mountain, plain, and virile life, these are his material. Father, mother, brother, friends, college chums, brother preachers, parishioners of his own and his friends, enemies fought at close range, these crowd his pages and fill the scenes with throbbing life. Some of us here to-day have recognized here and there a familiar face and many familiar places as we have read, and this has added materially to our enjoyment of his work. The reader in another land is glad to get these fresh human documents for his delight and his study. They open to him a new world, and in the old land those books must have come with a fresh, invigorating stimulus. That there is abundance of material all about us for the author is amply demonstrated by Ralph Connor.

The third great cause is that Ralph Connor is essentially a preacher of righteousness. To C. W. Gordon, the man, the message of the Cross is a life-work. Nothing with him equals the

glorious work of the preacher. His work as minister is above all other demands upon him. To Ralph Connor, the author, the same message is imperative, and through all his books runs the same clear call.

His message has three notes. Right living is everywhere emphasized by both noble examples of godly men and women doing their work among their fellowmen, quietly or strenuously, as the case may be, and by ignoble specimens of vice and meanness. Craig, Shook, Mrs. Mavor, Margaret, are types of noblest lives, and Slavin, Lloyd and Bulling are opposite types. The general admiration of mankind for rightness of life, and the general contempt for meanness and lowness are everywhere present. When one considers this kind of moral atmosphere in a novelist and compares it with the sneers at virtue and praise of vice in many popular authors, he cannot help feeling profoundly grateful. It is a great thing that the pen of our most widely read author is pure.

Sacrifice is another note in the message. That law of life is everywhere in evidence in Ralph Connor. Sacrifice of financial opportunity, of social pleasure, of self in every way; sacrifice not once, but constant; sacrifice after great struggle; such is a master note in all the books. Margaret, Dick and Barney in "The Doctor," the last book, and Craig and Mrs. Mavor in his first book illustrate this great law. In a time like our own, of great material possibilities and their consequent appeal to us, these stories of self-denial and self-mastery are full of noble incentive.

The final note in the message is the keynote of the Gospel. These men and women are moved to their nobility of thought and deed partly by a great sense of duty, but far more by their knowledge of and love for a personal Savior. The Savior who died for them, they know intimately and constantly. He is daily with them and it is not creed, but Jesus Christ, that is the mainspring. As Ian Maclaren has said, the religion of Jesus Christ is a personal dynamic, the attachment to a person, and not a creed. In fact in the western life, creeds are hopelessly mixed and largely ignored, but the Christ-life is patent and all-compelling.

I am glad to have this privilege of recording my deep admiration for Ralph Connor. Faults he has, no doubt, as any one can see, but he has vision, and power, and a clear, noble message of righteousness, and a great appreciation of our own Canada and of the infinite possibilities of its men and women, when dominated by the Christ-life.

ISABELLA VALANCY CRAWFORD.

MISS E. McMANUS, M.A., OTTAWA.

In the short annals of Canadian poetry I know of no more original and varied writer, no more arresting personality than that of the subject of this sketch—Isabella Valancy Crawford.

Born in Dublin in 1850, daughter of a physician of wide reading and scholarly tastes, the child was but eight years old when the family removed to Canada and settled in Paisley, on the Saugeen River. Of the life of the little maid in her new home we know almost nothing except that her father waged a disheartening war with poverty, and, at length, when the family of twelve children had dwindled to three, he removed to Lakefield, and then to Peterboro', where he shortly after died, leaving to his young daughter the chief care of the family.

Towards their support she contributed by writing short stories, sketches, anything a publisher would accept, though prose was not the medium through which she could best express herself. Poetry in Canada, then as now, brought in practically no returns. She soon became a regular contributor to "Frank Leslie's Monthly," and occasionally found a place in other periodicals. Her poems appeared chiefly in Toronto dailies.

Knowing, as she must have, the superior quality of her poetry, we perhaps should not marvel at the optimism that could permit her to use money so hardly earned, and so needed in other directions, for the publication of a volume of poems which she brought out in 1884 at her own expense. The volume was small, paper covered, outwardly uninviting—publishers seldom give more than is due—but within was a wealth of promise and performance, so rich that Canadian literature is forever the poorer for not having recognized it sooner. For the shabby little book dropped almost unnoticed from the press, and the author, wounded, perhaps disheartened, though she bravely hid it, died shortly after, carrying with her undiminished gifts which, developed, would have made us rich indeed.

Those who knew the family in Peterboro' tell of the exquisite

affection that existed among them, and of the poet's passionate and unselfish devotion to her mother and sister, whom she called "Precious." The death of this sister, a year after her father, was an almost crushing blow to the devoted girl whose young life had known so many graves. Soon mother and daughter removed to Toronto where, in a couple of rented rooms they spent the remainder of their days, having no intimate friends, hardly associates even, for the fine reserve of the daughter, like the beautiful old-world dignity of the mother, hedged them round, sheltered them in their poor little home alike from the careless pity of the ignorant, and the curiosity of the vulgar.

Miss Crawford died in 1887, but the mother, whose comfort she had most tenderly looked after, survived her by several years. Together they sleep now, side by side in the family plot at Peterboro'.

And what of the poetry left by this girl, to whom was given that highest gift of the gods—an illuminating and vivifying imagination? At once her book attracted attention in England where it was praised by such journals as the "Athenæum," "Spectator," "Literary World," and "Saturday Review," though even then in her own country it remained practically unknown. It was only a year ago—twenty years after the poet's death—that Mr. Garvin, of Peterboro', and Miss Wetherald, interested themselves in collecting and editing the poems of her whom many now consider Canada's sweetest and most original singer.

This is a high claim, but open her book anywhere and you feel at once the buoyancy, the splendid vitality of the writer. The freshness of morning is over it all; the dew is for her still on the flowers; poems of love, of nature, of romance, of home-building and of little children; poems of patriotism, of peace and wars, and the sterner side of life—are there, together with humorous sallies, quips and jests. The keenest joy of living and thinking permeates every page, and to clothe the thought pregnant words, phrases, metaphors, pour forth with an ease and accuracy that bespeaks the distinctively creative mind.

Of the "Inspiration of Song," she says:

Her turret hung above a glassy lake,
 And in all ages changeless thus had stood;
 About its foot, dark laurels and a brake
 O! gleaming bay eternal zephyrs wooed.

Up by the battlements there climbed a vine
 Gemmed with great roses that the eye of morn
 Looked on the birth of, but there came no time
 That saw them die or one bright petal shorn.

Centuries that on the world breathed but decay
 Wheeled their slow flight, and from their heavy wings
 Smote on its walls a light that paled the day,
 A light such as illumined diamond flings.

Sheer from a bank of violets sprang the walls,
 And climbed from thence above the lordliest trees,
 Until their hoary foreheads caught the rose
 And gold of far-off Heaven, . . .

And by a casement brightening in the wall,
 With fire-flamed diamonds latticed, sat the Queen,
 From age to age more beautiful, and looked
 To where a road the bay trees wound between.

Whiter than whitest dove her flowing robe
 Of precious samite, and the border round
 Glowed with all rarest gems of every hue.

Along the road, that was no common way,
 But led to heights where fanes, all bathed in light,
 Held thrones for those that won, pilgrims there passed
 In humblest weed or gorgeously bedight.

As each one passed beneath the towering wall,
 And raised his dazzled gaze to woo her eyes
 That at the casement sat, she brake a rose
 And breathed upon it till its crimson dyes
 Leaped into warmer life. "Take it," she sang, and cast
 It, meteor-glowing, to the out-stretched hand
 Of him below; and so content he passed,
 To sing of Love, or Power, or Fame.
 And some there were that crushed the flower between
 Gross palms that burned and sapped its charmed life.

We hear no echoes of other poets from Valancy Crawford; .
 each phase of nature seems hers by right of first discovery. The
 daisy that opens her golden eye on the world:

"O never came so glad a morn before!"

she cries in ecstasy.

"The round world seems not older by an hour
 Than mine own daisy self!"

So the lark and the nightingale sang to her, and all her sister flowers had messages, while

A gay, small wind, arch as a ruddy fox,

crept round her slender stem and piped to her of the white ships blown gaily by. What other poet has given color thus to the wind?

A gay, small wind, arch as a ruddy fox.

Again, we can almost catch the ripple of that gossiping stream that hurries along from Picardy for Margaton's washing:

Margaton, Margaton,

Here I come from Picardy!

Hurry off thy wooden shoes,

I will wash thy clothes with thee!

Kipling has somewhat accustomed us to looking at familiar things through the eyes of inanimate objects, such as a locomotive or a steamer. Before Kipling had his public or his vogue, Miss Crawford had made this art her own. Her canoe from its careful bed of pine-boughs resinous, and cedar, pictures for us a fire-lit camp scene where its

Masters twain sang songs that wove

A golden thread with a cobweb trife,

Lord of the chase and lord of love.

My masters twain their camp-soul lit:

Streamed incense from the hissing cones:

Large crimson flashes grew and whirled;

Thin golden nerves of skylight curled

Round the dun camp, . . . as

Into the hollow hearts of brakes,

Sinuuous, red as copper-snakes,

Sharp-headed serpents, made of light,

Glided and hid themselves in night.

While a bat by the red flames wove its rounds.

My masters twain the slaughtered deer

Hung on forked boughs with thongs of leather;

Bound were his stiff, slim feet together,

His eyes like dead stars cold and drear.

The wandering firelight drew near

And laid its **wide palm**, red and anxious,

On the sharp splendour of his branches,

On the white foam grown hard and sere

On flank and shoulder.

Death—hard as breast of granite boulder—

Under his lashes

Peered thro' his eyes at his life's grey ashes.

We get, too, a wonderful and sympathetic glimpse of the "Ghosts of the Trees," and of the shadow-grey swift that, darting from her airy cave, when the prophet wind tells of the coming rain:

Smites the blue pond and speeds her glancing wing
Close to the daffodils.

These are, of necessity, but glimpses into an unusually rich and varied picture-gallery.

But it is not as a descriptive, nor as a lyric poet that Miss Crawford distinctively claims our attention. She excels in many lines. Her narrative poems, strong, swift and entertaining, fairly riot in imagery and imitative harmony. "Malcolm's Katie," is a love-story in seven parts, of thirteen or fourteen hundred lines, with lyrical interludes in the manner of "The Princess." This is Miss Crawford's most sustained effort, and it is a worthy one. The story, well-conceived, wholesome and balanced, is enriched by a wealth of imagery and beauty of sentiment. In it love is supreme, as is shown by the chaste and delicate lyrics introduced, such as:

O Love builds on the azure sea,
And Love builds on the golden sand,
And Love builds on the rose-winged cloud,
And sometimes Love builds on the land!

O if Love build on sparkling sea,
And if Love build on golden strand,
And if Love build on rosy cloud,
To Love these are the solid land!

O Love will build his lily walls,
And Love his pearly roof will rear
On cloud, or land, or mist, or sea—
Love's solid land is everywhere!"

This story is a Canadian idyl—I know of none finer—an idyl of honest love and of honest labor, of men that thought it a privilege, a god-sent blessing, to be allowed to build homes in this new land, to know the joy of owning, even through hard physical toil, their own firesides, where every year,

The land would put his ruddy gauntlet on,
Of harvest gold, to dash in Famine's face,

and where their souls, like the hero's

Might grow and show a virile front,
Full-muscled and large-statured like their flesh.

It is a poem which if properly taught to our growing country boys and girls—yes, and to our city children, as well—would do much towards taking the reproach from hardened hands and toil—bent shoulders—a lesson more needed than some other we are diligent to impart.

Quite as striking in its way as this love-story is "Gisli, the Chieftain," a series of northern Sagas, varied in metre, each depicting some phase in the fierce life of the warriors, or the way to Valhalla. The closing part shows a disembodied spirit seeking his final abode:

A ghost along the Hell Way sped:
The Hell Shoes shod his misty tread;
A phantom hound beside him sped.

Beneath the spandrels of the Way
Worlds rolled to night—from night to day;
In Space's ocean suns were spray.

Grouped worlds, eternal eagles, flew;
Swift comets fell like noiseless dew;
Young earths slow budded in the blue.

The sweep of imagination here is as powerful as it is uncommon. "In Space's ocean suns were spray,"—

Grouped worlds, eternal eagles, flew,
Young earths slow budded in the blue.

It is a bird's eye view of the universe, graphic and luminous.

But it is, perhaps, in "The Helot," a poem of about four hundred lines, that Miss Crawford's genius reaches its highest expression. Here there is a richness and mature dignity found only in poets capable of the highest work—a promise that untimely death alone prevented this poet from more perfectly fulfilling. A Spartan father, restrained and cold-blooded, is giving his son a lesson in self-control—the supreme virtue of his race—by forcing his slave to drink himself into a state of absolute brutality:

"Drink, dull slave," the Spartan said;

"Drink, until the Helot clod

Feels within him subtly bred

Kinship to the drunken god;

- “ Drink, until the leaden blood
 Stirs and beats about thy brain,
 Till the hot Cæcuban flood
 Drowns the iron of thy chain;
- “ Drink, till even madness flies
 At the nimble wine’s pursuit,
 Till the god within thee lies
 Trampled by the earth-born brute;
- “ Helot, drink, nor spare the wine;
 Drain the deep, the maddening bowl;
 Flesh and sinews, slave, are mine,
 Now I claim thy Helot soul!
- “ Gods, ye love our Sparta! Ye
 Gave, with wine that leaps and runs
 O’er her slopes, these slaves to be
 Mocks and warnings to her sons.”

The Helot drinks until enraged by the scorn of the tyrant, and lifted above fear by the wine, he avenges the wrongs of his race by striking the Spartan in his one vulnerable spot—the life of his only child.

Who may quench the god-born fire
 Pulsing at the soul’s deep root?
 Tyrant, grind it in the mire,
 Lo, it vivifies the brute!

Comes a day the spark divine
 Answers in the Helot clods;
 Under despot heel is bred
 The white anger of the gods.

And so is vindicated once more the divinity innate in man in spite of deepest degradation or sottishness.

Still further proof of the remarkable versatility of this author is shown in the ease and success with which she uses dialect verse, fairly rivalling Lowell and Bret Harte in her Western scenes, and going quite beyond them in her Irish and Scottish poems. She does not attempt the broken English of Jean Baptiste, though her sparkling lyrics of Picardy and of Bouche Mignonne show her familiarity with French. Her longest dialect poem is “Old Spookses’ Pass,” a graphic and semi-humorous account of a night stampede of cattle in the Rockies during a thunder-storm, in which the cow-boy teller of the story is helped to round up the

flying herd by an unseen, but not unheard, rider. The stam-pede is thus described:

The herd wus up,—not one at a time,
Thet ain't the style in a midnight run—
 They wus up an' off like es all thair minds
 Wus rolled in the hide of only one.

I've fit in a battle an' heerd the guns
 Blasphem'in' God with thair devils' yell;
 Heerd the stuns uv a fort like thunder crash
 In frunt uv the scream uv a red-hot shell;
 But *thet* thar poundin' uv iron hoofs,
 The clatter uv horns, the peltin' sweep
 Uv three thousand head uv a runnin' herd,
 Made all uv them noises kind uv cheap.

Interspersed through this and her other dialect poems are touches of a homely philosophy and a shrewd but kindly knowledge of human nature.

With Miss Crawford love is a favorite theme, the keynote of her sweetest lyrics, but it is always happy love—love triumphant over all.

There are several fine poems for children, this stanza from one lullaby showing fairly the quality:

What doth the Moon, so lily white,
 Busily weave this summer night?
 Silver ropes and diamond strands
 For Baby's pink and dimpled hands;
 Cords for her rosy palms to hold
 While she floats, she flies
 To Dreamland, set with its shores of gold,
 With its buds like stars shaken out of the skies,
 Where the trees have tongues and the flowers have lips
 To coax, to kiss
 The velvet cheek of the Babe who slips
 Thro' the Dream-gate up to a land like this.

Of Miss Crawford's patriotic poems, her poems on war, on peace, on wealth, I have said nothing, nor can I now do more than thus refer to them though they are equal in strength, expression and melody to anything I have quoted. Indeed, I feel that only too often I have marred a poem by giving but a portion of it, for the imaginative breadth of this poet is best seen when each poem is taken in its unity.

There is not in this book, I believe, a line that is purely personal of the author, and yet I like to think that the poem, "He arose and went into another Land," typifies Miss Crawford's father, with its touching picture of the dead physician, the wonder of death's release still on him, hearing from parched lips in the long-stretched ward,

Bless our dead friend who died to-day,
Friend of the helpless!

Of course, in a sense all songs are personal, they fitted into the mood of the singer; for as Shelley says, "A poet is a nightingale who sits in darkness and sings to cheer its own solitude with sweet sounds." Then, after all, what would lack of appreciation, neglect, or poverty matter to a poet? Poverty? That is often but another name for environment. "What porridge had John Keats?" Browning scornfully asks, What rewards had Milton? Would Valancy Crawford in affluence have given fresher or truer pictures of the hidden beauty of the world? Perhaps not; and yet we feel the world that refused to listen was dull, selfish, and, surely, not over-wise.

But what of the world of to-day? Our world—Canada—Ontario?—if I may narrow it to that. What do we know of our poets? I have striven to show that Miss Crawford has virility, melody and breadth—that she is no whit inferior to any of our secondary poets. Why then do we, as a people, know so little of her? Why do we know so little of Roberts, of Lampman, of Carman, or Campbell? Why do we know and think so little of our own?

I have before me the High School examination papers set by the State Board of New York for the years 1904-5-6. Pupils wishing to become teachers or to enter a university write on these. In the literature I note a difference from our custom. They have each year a paper on English literature, and one on American literature as well.

"The impulses to early immigration into America were two-fold—commercial and religious. Show in detail by references to authors and works how these impulses affected the character of early colonial literature in New England and in Virginia before 1700," is one question.

"Give reasons why *each* of the following deserves a place in American literature and illustrate by reference to their works:

Geo. Washington, Thos. Jefferson, Alex. Hamilton, Abraham Lincoln." Fancy asking our matriculants similar questions about Sir Isaac Brock, Joseph Howe, or Sir John A Macdonald.

But the questions are not confined to literature that marks the rise and development of their nation merely. I find here mention of "The Old Oaken Bucket," "Marco Bozzaris," "Sheridan's Ride," "The Rise of Silas Lapham," "The Hoosier Schoolmaster," "A Kentucky Cardinal," and questions concerning Curtis, Mitchell, White, Warner, Van Dyke, Bliss Carman, and a host of others of to-day and yesterday.

Could our pupils answer similar questions on Canadian literature, or even easier ones on the same lines? Could they tell us anything Miss Crawford has written? Do they know her name even? No one here will maintain, surely, that our own half-dozen poets are not as worthw of study as, say, any group of American poets. And yet Canadian Universities have never required any knowledge of Canadian literature from their matriculants. The Education Department of Ontario, too, has persistently ignored it. Our High and Public Schools, as such, know nothing of it. Are we not in this very like the old chap in "The Romany Rye," who had painfully learned to read Chinese, but couldn't tell what 'twas o'clock? We go far afield to learn many things of doubtful value, while to the melody at our own doors we are deaf.

I know not just what man decides from year to year what literature selections Canadian teachers shall study, but I do know there is not a recognition there of Canadian literature, not a hint of the land in which these teachers live and move and have their being; no word of Haliburton, of Howe, of Roberts, of Valancy Crawford. Why? Is it any wonder teaching is discredited in a country whose educational institutions ignore its own men and women of finer spirit, a country which starves the genius of the land, which treats with the contempt of silence and neglect the intellectual output of its own sons and daughters, which sets its youth to learn the cold and monotonous literature of the eighteenth century,

Remote, unfriended, melancholy, slow,

but knows not that at its own doors,

There still a ruby kindles in the vine,
And many a garden by the water blows.

Well might Roberts say in another sense,

How long this ignoble sloth? how long
This trust in greatness not our own?

Why should not our pupils know Campbell's "Bereavement of the Fields" as well as Gray's "Elegy?" Why should they not know Bliss Carman's "Captain of the Scud," "the Norland lad-die that sails the round sea's rim"—as well as the "Skipper of the Hesperus?"

Why should they not see with Lampman "the second harvest of the well-tilled field"; with Roberts, the "sailor buried ashore"—no longer an "inhabiter of change"; with Miss Crawford,

Bearded sheaves and ruddy grapes,
Treasure of the conquered soil?

This is not meant as a bit of rhetoric merely. It is an appeal for a movement towards some official recognition of Canadian literature in our schools. Canadian literature as such must be recognized some time. Why not now? Our reading public is composed chiefly of people trained in our Public and High Schools. They know almost nothing, think nothing, of their own poetry because they have been taught nothing of it. Can a beginning not be made in our training schools? No teacher should be allowed to go forth to teach Canadian children who has not an appreciative knowledge of the history and literature of her own country; who has not learned to measure the steps in its development by the written and spoken words of its men of genius, and seen with their eyes the hope and promise of this young nation of the favored North!

SIR GILBERT PARKER'S WORKS.

A. H. YOUNG, M.A., TRINITY COLLEGE, TORONTO.

The work of this talented Canadian covers poems, short stories, romances, and articles on Imperial Federation, together with political speeches and addresses on educational affairs as bearing upon the Empire. The last two, although filling the larger place in Sir Gilbert's life and activities at the present time, do not concern us so much for the moment as do the other three, seeing that it is as a literary man particularly that he is now to be discussed.

Setting aside every desire to laud him as an alumnus of the University of Toronto, with which, as a member of Trinity University, he has become identified under the Federation Act, and turning away from the temptation to point with pride to him as a successful Canadian who has made a name for himself in the world of letters, it is for us to try to find out wherein his excellence as a writer lies, and to give a brief review of his novels and his short stories. How far his abilities are due to his Canadian birth and early environment ought also to be determined.

Born in this province, in the Belleville district, and receiving his education here, the foundations may fairly be said to be Canadian. The superstructure, however, which is made up of his manhood's work, is Australian and English. True, he discharged the duties of an instructor in elocution at Queen's College, Kingston, and at Trinity College, Toronto, and for a time he exercised in Canada the functions of a deacon of the Church of England. Then he betook himself to newspaper work, and he finally drifted from Australia to London.

Wishing to become a literary man, rather than a mere newspaper writer and contributor to magazines, he turned his attention to poetry and the short story. Only one small volume entitled, "A Lover's Diary," stands as a witness to his abilities as a poet. In that office he was surpassed, as he himself would freely acknowledge, by another son of his Alma Mater, the late Archibald Lampman.

Yet the collection of sonnets is far from being unworthy. It is, as the name would indicate, dedicated to that great passion

which more or less sways the heart of every man. And it is treated with all the purity and chivalry which characterize it in "Pierre and His People" and his other books in prose. As specimens may be taken the first of the collection and the fifth from the end:

- (1) As one would stand who saw a sudden light
 Flood down the world, and so encompass him,
 And in that world illumined Seraphim
 Brooded above and gladdened to his sight;
 So stand I in the flame of one great thought,
 That broadens to my soul from where she waits,
 Who, yesterday, drew wide the inner gates
 Of all my being to the hopes I sought.
 Her words come to me like a summer-song,
 Blown from the throat of some sweet nightingale;
 I stand within her light the whole day long,
 And think upon her till the white stars fail:
 I lift my head towards all that makes life wise,
 And see no farther than my lady's eyes.
- (2) You shall live on triumphant, you shall take
 Your place among the peerless, fearless Ones;
 And those who loved you here shall tell their sons
 To honour every woman for your sake.
 And those your Peers shall say, "Others are pure,
 Others are noble, others too have vowed,
 And for a vow have suffered; but she bowed
 Her own soul and another's to endure.
 She smote the being more to her than all,—
 Her own soul and the world,—a truth to hold,
 Faith with the dead; and hung a heavy pall
 'Tween her and love and life. The world is old,
 It hath sent here none queenlier. Of the few,
 The royal few is she, martyred and true."

The felicity of the verses scattered through many of his novels and the short stories also testify to his abilities in this field of literature. Yet he knew himself well when he decided to turn his attention to the short story, for even his longer works are, after all, just a succession of short stories rather than novels proper, unless an exception be made in favor of the "Translation of a Savage" and "Mrs. Falcion."

"The Seats of the Mighty" just missed being a great novel. It contains many interesting incidents, many thrilling descriptions; and, above all, there breathes through it the air of the old

courtly life of the France of Louis XIV. and Louis XV. The convent seclusion and all the charm of its grace and picturesqueness are delightfully mirrored in the book, and yet it just falls short of what is required in a satisfying novel.

On the other hand, it is interesting to note in passing that "Punch" some ten years ago got from the title of the book a clue to an amusing series of witticisms at the expense of the public men of Great Britain. This incident serves to show that it has a great deal of merit.

The one outstanding merit of the book is that it shows the author to be in hearty sympathy with New France and the French Canadians, a characteristic which stands out prominently also in his historical study, brought out with the co-operation of Mr. Claude Bryan, under the title of "Old Quebec." This is to be found likewise in "An Adventurer of the North," "The Trail of the Sword," "When Valmond Came to Pontiac," "The Pomp of the Lavalettes," and "The Lane That Had No Turning."

Another phase of Canadian life with which our author shows a more or less intimate acquaintance is that of the Indians and the half-breeds of the North-West. This appears most strongly in "The Translation of a Savage" and in "Pierre and His People," which upon the whole I am inclined to call his best novel and his best collection of short stories respectively. The dignity and innate nobility of the Indian character, as uncontaminated by contact with the whites, together with the sordidness of it after that contact, he thoroughly understands.

Lali, daughter of Eye-of-the-Moon, and a chieftainess of a portion of her father's tribe becomes the wife of Frank Armour, adventurer and trapper, who had gone to the Canadian North-West to push his fortune. He married her out of pique on hearing that his *fiancée*, Miss Julia Sherwood, a poor but aristocratic beauty in London, had preferred the heir of a *nouveau riche*, who had plenty of shekels, while Armour was only a younger son.

To flout his own people, who had been opposed to his engagement and who showed unmistakable signs of gladness at the turn given to events by Miss Julia, he determined to send his new-made wife to them in her blanket and war-paint. The plan was carried out, the "Aristocrat of the Country" travelling from Port Arthur under the chaperonage of a Mrs. Macdonald, who received instructions on no account to let Mrs. Armour change her native garb.

Naturally, the arrival of a daughter-in-law of this description was a great trial to General and Mrs. Armour and their family. Being thoroughbred, they accepted the situation and went down to their country place and proceeded to try to make Lali presentable. In this they succeeded, although for a time she was like a wild thing caught and put in a cage.

The success which ultimately crowned their endeavors was due in large measure to the exertions of their elder son, who, owing to physical deformity, was somewhat of a recluse. Understanding his brother, to whom he had written sympathetically in regard to the disappointment of his hopes by Miss Sherwood, he knew the motive which had led him to make an Indian girl his wife. He could not approve of her being made the instrument of revenge upon his father and mother, and he was seized with a great pity for her; and this pity caused him to take infinite pains with her education.

Suddenly the true state of the case dawned upon the girl wife because of her husband's long delay in following her home. Then indignation and bitterness filled her heart and she decided upon her revenge.

In time a little son was born and she strictly charged all of her husband's relatives to keep his birth a secret from her husband.

After three years the husband returns at the close of the London season. Coming to a certain extent unexpectedly, he finds his father's house ablaze with light for a great reception, carriages thronging the street before and near it.

Gauging the situation, he goes quietly up to his own room and sends word down to his wife that he has arrived. She comes to him and treats him with great reserve and coldness. Finally, she closes the interview with the words, "Let us go down now for I shall be missed." So she went down to help entertain the guests, among whom she moved with the assured dignity of one who had been born to such things.

But Frank Armour found that he had to win the love of his wife. For her own sake and that of her son it was worth doing, and he set himself about it in the most devoted fashion. But yet, as the chronicler records, as if to remind him of the wrong he had done, "Heaven never granted Frank Armour another child."

The story has provoked much criticism, it having been asserted that three years afforded too short a time in which to transform

a squaw, accustomed only to a blanket, paint, grease, and feathers, into a haughty society dame. But they who take this view know but little of the Indian character, nor have they seen just such transformations effected in the old Hudson Bay days. Not one whit overdrawn is any part of the story from beginning to end; and it is an admirable study of woman's character.

The motive of the book is love, not that of husband for wife, or of wife for husband, but of father and mother for child, and of the child for father and mother. To this is added the love and gratitude of Lali Armour for and to the deformed brother-in-law who was kind to her in a strange land and among people who at best were curious about her and condescending toward her. To reward his kindness, she learned the things which he wished to teach her, and so she became fitted for the station in life which she was called upon to adorn.

As a specimen may be taken, "Every man should have laws of his own, I should think; commandments of his own, for every man has a different set of circumstances wherein to work—or worry."

"The wisest man I ever knew," said Frank, dropping his cigar, "was a little French-Canadian trapper up in the Saskatchewan country. A priest asked him one day what was the best thing in life, and he answered, 'For a young man's mind to be old, and an old man's heart to be young.' The priest asked him how that could be. And he said, 'Good food, a good woman to teach him when he is young, and a child to teach him when he is old.' Then the priest said, 'What about the Church and the love of God?' The little man thought a little and then said, 'Well, it is the same—the love of man and woman came first in the world, then the child, then God in the garden.' Afterwards he made a little speech of good-bye to us, for we were going to the South while he remained in a fork of the Far-Off River. It was like some ancient blessing; that we should always have a tent and no sorrow as we travelled; that we should have a *caché* for our food, and food for our *caché*; that we should never find a tree that would not give sap, nor a field that would not grow grain; that our bees should not freeze in winter, and that the honey should be thick, and the comb break like snow in the teeth; that we keep hearts like the morning, and that we come slow to the Four Corners where man says good-night."

If the long stories were being passed under review together it would be necessary next to come to "Mrs. Falcion," the only other one which stands out prominently from among the others. But inasmuch as it is an attempt to write an imperialistic novel, if that way of speaking may be used, it is better to take up first "Pierre and His People."

Of all Sir Gilbert's books "Pierre and His People" still stands as the best, as it was one of his earliest. "Pretty Pierre," as he was called, and the French half-breed nature form a most interesting study. Gambler by profession and practice, he still had in him the instincts of a man, and he had his own code of honor, in which respect for and honor to women were the chief article.

He perhaps shows at his best in the three stories, "The Prairie Vagabond," "The Three Outlaws," and "She of the Triple Chevron."

The first-mentioned story is that of a "Bad Indian," who drank whenever he could get rum and stole whenever he could lay his fingers on anything that was not his own. He had not always been so, but once had been a mighty chief, from whose rule great things had been expected. Peace and prosperity were to reign through his sceptre. But a change came. A white man, worse than he in his degenerate days ever became, entered his encampment and tampered with his wife. Then all things good seemed to go out of his life.

One night Little Hammer's enemy crossed his path at the Hudson Bay Post. With the flash of a knife the latter fell back dead. Little Hammer stood above him, smiling for a moment, and then, turning to Sergeant Gellatly, held out his arms silently for the handcuffs." Of course, he was tried for his life, notwithstanding the fact that he and the Sergeant got lost in a snow storm.

The Sergeant was like to succumb to the blizzard, but the Indian kept him alive as if through him his vindication was to be made perfect.

At the trial the Sergeant refused to testify against the Indian, seeing that the latter had saved his life, but "Pretty Pierre" was present, and his testimony saved Little Hammer's life, although the latter had said, "There is too much talk. Let me be. It is all done. The sun is set—I care not—I have killed him." . . . But Pierre continued: "Yes, you killed him—quick, after five

years—that is so; but you will not speak to say why. Then, I will speak. The Injins say Little Hammer will be great man; he will bring the tribes together; and all the time Little Hammer was strong and silent and wise. Then Brigley, the trapper—well, he was a thief and a coward. He come to Little Hammer and say: ‘I am hungry and tired.’ Little Hammer give him food and sleep. He go away. *Bien*, he come back and say, ‘It is far to go; I have no horse.’ So Little Hammer give him a horse too. Then he come back once again in the night when Little Hammer was away, and before morning he go; but when Little Hammer return, there lay his bride—only an Injin girl, but his bride—dead. You see? Eh? No? Well the Captain at the Post, he says it was the same as Lucrece. I say it was like hell. It is not much to kill or die—that is in the game; but that other, *mon Dieu!* Little Hammer, you see how he hide his head; not because he kill the Tarquin, that Brigley, but because he is a poor *vaurien* now, and he once was happy and had a wife. . . . What would you do, judge honorable? . . . Little Hammer, I shake your hand—so. How.”

“But Little Hammer made no reply.”

The judge sentenced Little Hammer to one month in gaol. He might have made it one thousand months—it would have been the same; for when, on the last morning of that month, they opened the door to set him free, he was gone. That is, the Little Hammer whom the high gods knew was gone; though an ill-nourished, self-strangled body was upright by the wall. The vagabond had paid his penalty, but desired no more of earth.

Upon the door was scratched the one word:

“*How!*”

“The Three Outlaws” tells of a missionary at Fort Anne, the Rev. Ezra Badgley by name. He poured out most of the vials of his wrath in his sermons upon “Pretty Pierre.” But “Pretty Pierre” had his revenge.

“A girl had been found dying on the roadside beyond the Fort by the drunken doctor of the place and Pierre. Pierre was with her when she died.” She had a past intimately associated with the missionary, who had gone west to avoid her. Pierre undertook to play Providence, or fate, whichever you will, Nemesis certainly. Laudanum or exposure was the alternative.

“There was silence. The sullenness about the missionary’s

lips became charged with a contempt more animal than human. The Rev. Ezra Badgley knew that the man before him was absolute in his determination, and that the Pagans of Fort Anne would show him little mercy, while his flock would leave him to his fate. He looked at the bottle. The silence grew, so that the ticking of the watch in the missionary's pocket could be heard plainly, having for its background of sound the continuous swish of the river. Pretty Pierre's eyes were never taken off the other, whose gaze, again, was fixed upon the bottle with a terrible fascination. An hour, two hours, passed. The fire burned lower. It was midnight; and now the watch no longer ticked: it had fulfilled its day's work. The missionary shuddered slightly at this. He looked up to see the resolute gloom of the half-breed's eyes, and that sneering smile fixed upon him still. Then he turned once more to the bottle. . . . His heavy hand moved slowly towards it. His stubby fingers perspired and showed sick in the light. . . . They closed about the bottle. Then suddenly he raised it and drained it at a draught. He sighed once heavily, and as if a great inward pain was over. He rose and took the letters pushed silently towards him, and dropped them in the fire. He went to the window, raised it, and threw the bottle into the river. The cork was left. Pierre pointed to it. He took it up with a strange smile and thrust it into the coals. Then he sat down by the table; he leaned his arms upon it, his eyes staring painfully before him, and the forgotten napkin still about his neck. Soon the eyes closed, and, with a moan on his lips, his head dropped forward on his arms. . . . Pierre rose and, looking at the figure soon to be breathless as the baked meats about it, said: "Well, he was not all coward. No."

"Then he turned and went out into the night."

Verily, as Pierre had said, "Women are mad when they love." In "She of the Triple Chevron" the madness takes the form of heroism. Jen Galbraith rides through the night to save the honor of Sergeant Gellatly, whom she loved and who loved her. There were orders to be executed which involved the arrest of the murderer of an Indian. Being tired after long service, the Sergeant had turned in at old Galbraith's place to have a bite and a sup. Old Galbraith and Pretty Pierre had drugged his coffee, unknown to Jen, for a reason also unknown to her. Her brother

Val, in a fit of anger, had killed the Indian, who had suggested that he might buy the former's sister as Indians buy their wives, and the warrant was out for his arrest. All this was kept from Jen lest she should worry for the lad, to whom, though little younger than herself, she had played the part of a mother.

All four men would have done anything to save Jen trouble and pain, and the three older would have given themselves to save Val's life. But it was owing to his sister's heroic ride on account of her lover, who likewise was in ignorance as to the identity of the murderer, that Val was arrested and taken to the fort. "Pretty Pierre" unravelled all the complications which had produced such a tragic situation, and gave Sergeant Gellatly to understand that it was for him to do something worthy of the occasion.

The next day Sergeant Gellatly came to Pete Galbraith's in Pretty Pierre's company. He was wounded in the back, having been shot as he helped Val to escape from the fort. But, before undertaking anything so adventurous, he had bought his discharge and so had not proved traitor to his oath of service. Val made his escape to Montana, and the Sergeant was nursed back to health by Jen. Thus they settled the whole matter.—"Will you say what I ask you, Jen?"

She did not speak, but pressed his hand ever so slightly.

"Tom Gellatly, I promise," he said.

"Tom Gellatly, I promise—"

"To give you as much—"

"To give you as much—"

"Love—"

There was a pause, and then she falteringly said, "Love—"

"As you give to me—"

"As you give to me—"

"And I'll take you poor as you are—"

"And I'll take you poor as you are—"

"To be my husband as long as you live—"

"To be my husband as long as you live—"

"So help me God."

"So help me God."

"She stood with dropping tears and he kissed her once. Then

what was girl in her timidly drew back, while what was woman in her, and therefore maternal, yearned over the sufferer.

They had not seen the figure of an old man at the door. They did not hear him enter. They only knew of Peter Galbraith's presence when he said: "Mebbe—mebbe I might say Amen."

In this story, too, "Pretty Pierre" played the part of Providence, not an avenging one this time, but a kindly one for the sake of the woman in the case as much as for her handsome brother, for whom he had no other feeling than that of admiration. "He was honest," said Pierre. "He does not like me but, unlike other people, he openly lets me see that he does not, although he is willing to play cards with me."

The man, "into whom a devil entered at his birth," had an unhappy love story of his own. But the love story, sad though it was, had a transforming influence upon his life, and gave it that touch of nobility which, in spite of his card-playing, he still possessed.

In the story "God's Garrison," there is in the prediction of the idiot as to the result of the siege, a curious suggestion of what was to be worked out at greater length in the "Right of Way," in the case of Charlie Steele. Everyone who has read the latter story will remember the clever professional man ruined by drink, who fell into the hands of a kindly parish priest, and a skillful surgeon, who by trepanning, managed to restore him to his right mind. Then, like Enoch Arden, Charlie visited his own home again and looked longingly upon the blessings that he had lost.

Of Mrs. Falchion and her adventures in the South Sea Islands, on a P. & O. steamer, in England, on an Atlantic Liner, in Toronto, and in British Columbia, there is but little time to speak.

It is the tale of a fascinating woman soured by ill-success in love, and the sense of a supposed wrong done to a gentle half-sister. She pursues the author of this supposed wrong from place to place, even into the heart of British Columbia, where he at last thinks that by winning the love of a pure young girl he has found rest and forgiveness for whatever of sin his past contained. The question was whether Mrs. Falchion should destroy his happiness and that of this young girl or let them live in peace. The beauty of their love and the explanation of the mystery surrounding the death of her half-sister caused her to change her purpose, and she, for the remainder of her life, became sweet.

Finding her husband again, she is reconciled to him. "I have sinned," she said.

He took her hands in his.

"I know," he said, "that you do not love me yet," but you may some day. "No," she said, "I do not love you; but I am glad you live. Let us go home."

This optimism which believes in the ultimate triumph of the good over the evil of the world is the dominant note in all that Sir Gilbert Parker has written. Sin is one of the facts of the world, but Love and Faith and Hope can overcome sin and can lift men up to something like the Divine.

NATURAL SCIENCE SECTION.

*SHOULD THE ATOMIC AND MOLECULAR THEORIES
BE ABOLISHED FROM THE HIGH SCHOOLS?*

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In this paper I wish to consider the subject of the molecular and atomic theories in relation to high school work. These topics were dropped from the program of chemistry at the last revision of the curriculum, and I wish, first, to find the origin of the change, and next to consider if it was a step in the right direction.

The innovation has been championed chiefly by the members of the faculty of chemistry in the University of Toronto, and a crusade in its behalf has been zealously conducted by them. Dr. Miller has issued a small book along these lines, which has been distributed amongst the science teachers, and Inspector Mills' Chemistry has been edited in the same direction. I believe that chemistry is now taught in the University, at least in the junior years, along the same lines, so I would probably be not far astray if I stated that it was these gentlemen who originated the change.

According to the testimony of these chemists, the students who come to them have their minds stuffed with atoms and molecules, but know little chemistry, and, from the lecturer's desk, they even suggest to the students that they forget all the chemistry they were taught in the high school, and begin their university training with a clean slate, as their pre-university education in chemistry gives them distorted views which hinder rather than help. This is a serious indictment against the science teachers of the province, provided it is deserved.

I am not sure that it is entirely justified. I have failed to meet the student who felt his high school chemistry an incumbrance when he entered college, and badly as it may be taught, I do not believe such an attitude on the part of university men is at all merited.

Still, I consider that chemistry is not as well taught in high

schools as it should be, and that this is partly due to a wrong use of and an exaggerated importance being given to the atomic and molecular theories as methods of explaining facts. This can be traced chiefly to three or four causes.

The great majority of the science teachers in the high schools are University of Toronto graduates, who got their chemical training from the gentlemen who now complain of their methods of teaching. Our ideas in regard to chemistry were largely formed during our undergraduate course, and our present methods are but the reflection of our training there. Unfortunately I was an undergraduate before the days of the revival, when molecules and atoms were in full vogue. The way to teach the laws of chemistry is by quantitative experiments, but they were taught in the college without any such operations; instead, for six long hours every week, we followed slavishly a table in qualitative analysis and monotonously went through the operation of throwing down highly-colored precipitates, and then of re-dissolving them. Day after day we went through the same performance and learned merely the manual part of a few qualitative operations. It is true we did quantitative work later, after the quantitative laws had been learned dogmatically, but even these experiments were performed, not to learn any chemical facts, but as an exercise in accuracy of manipulation. Not a single experiment was performed in which even a simple problem was investigated. Such experimental work was not calculated to make good teachers. I am glad to know that within the last few years very important changes have been made, and now, at the beginning of the course, experiments that have some purpose and some heuristic value have been initiated, and I have no doubt it will soon be reflected in the high schools.

Another factor that has led to the production of poorly trained students, and that has given university men an unjust opinion of high school work, is the iniquitous standard of the junior matriculation. How university lecturers can expect to get students well trained in chemistry while they invite laziness, carelessness and lack of scholarship by a matriculation examination that any ignoramus can pass, who has the slightest smattering of chemistry in its crudest form, is a mystery they must solve for themselves. Matriculation students are the bane of the high school, not because they are less clever, but because they know

that matriculation can be passed by any dunce without much application to work.

The third and chief reason why chemistry teaching is not as it should be, and why students use molecules and atoms too freely, is the nature of the High School Chemistry. A text-book authorized for exclusive use throughout a province must have a very predominant influence on the general nature of the chemistry learned by students. These two theories form the alpha and the omega of this book and a good part of the middle as well. They are brought forward on all occasions, and no wonder complaints are made of students being filled with atoms and molecules, but no chemistry.

Before any element has been studied, before any experiments have been performed intended to show the differences between elements and compounds, we get complete definitions of each, and are plunged into definitions of atoms and molecules. It will be remembered that in this book a few experiments are introduced to show the difference between physical and chemical change, mixture and combination; and to illustrate the agents that promote chemical change. Then in Chapter III. occurs this statement, "From the experiments of the last chapter, it is quite evident that two or more substances may have their parts intimately mixed up with one another, yet each retains its own identity and has all its properties unchanged. In other cases, however, it is quite impossible to observe any trace of either constituent in the resultant substance, and the distinguishing properties of the kinds of matter that were acted on have been altered so that an entirely new material has been formed. It becomes necessary now to give a brief outline of the theory, which offers an explanation of this phenomenon."

The author then proceeds to formulate the atomic theory as an explanation of why constituents change their properties when united in a chemical compound. This theory was never advanced to explain such facts, nor does it in the least help us to understand them. By placing a particle of heavy, shining liquid, metallic mercury, in contact with a particle of gaseous, transparent, colorless oxygen, both substances disappear, and a bright red heavy powder with entirely different physical properties is formed in its place. To say that this can be explained by the atomic theory I claim is absurd. Dalton never advanced this theory for such a purpose.

One of the most important educational documents ever issued in America is the Report on the Requirements for College Entrance, issued by a committee of the National Educational Association of the United States. I will quote the chief recommendations regarding class-room work in chemistry, and it will be seen that the High School Chemistry transgresses almost every recommendation advanced:

"The theories and principles must be presented inductively. They should not be stated as dogmas, or as if they were part of the facts. They should be held in reserve until some accumulated facts demand explanation and correlation. When symbols and formulæ are first introduced, special care must be taken to show how they are derived from quantitative measurements. The pupil's own observations and other examples must be used to show how the formulæ, and finally the equations, are reached as expressions of quantitative relations. The whole process of determining the proportions by weight and constructing the formulæ and equations must be done or described in connection with every chemical change, until the pupil is thoroughly familiar with the operation and the exact significance of the equation is perfectly clear. Formulæ must on no account be used before this can be done, as otherwise they will inevitably appear to be the source of information instead of the receptacle for it.

"The misuse to which equations have been put has led to their omission or prolonged postponement by some teachers. Their introduction at an early stage can do no possible harm, provided the laboratory work contains exercises specifically intended to illustrate the way in which the facts recorded in the equations are ascertained and the manner in which the equations are constructed from the facts. The theory should not be introduced until after this experimental foundation of the equation is thoroughly familiar."

These theories are valuable as an explanation of the quantitative laws of chemistry and the theory should certainly not be introduced until after these laws have been demonstrated experimentally. After Charles' law, Boyle's law, laws of definite, multiple and reciprocal proportions have been empirically learned as generalized statements of facts, then the atomic and molecular theories may be introduced as a concrete mechanism that unifies all these laws which otherwise must remain disconnected.

The High School Chemistry largely reverses the process. These theories are introduced before a single chemical substance has been carefully investigated. Atomic weights, formulæ and equations are taught with no hint as to how these can be got at experimentally. The law of definite proportion alone is experimentally determined. The law of multiple proportion is explained in connection with the oxides of nitrogen, but the law is derived from the formulæ of the substances and not from their percentage composition experimentally determined.

I am prepared to say then, that the uses of the atomic and molecular theories have been grossly abused in Ontario. I am free to admit that I have made a wrong use of them, and that every teacher is liable to do the same who uses the High School Chemistry. But I am not prepared to say that for that reason alone they should be blotted out of the high school curriculum. That would be too heroic treatment and reminds one of the incident related by Charles Lamb, how a man in order to roast his pig set the house on fire. It is like curing the tooth-ache by cutting off the head. I thoroughly believe that it will be disastrous if the atomic and molecular theories are banished from the chemistry of the high school, and I shall now give a few reasons why I have come to this conclusion.

The human mind is always desirous to correlate facts, and can never be satisfied until it has done so. Suppose that by experiments the students have grasped the meaning of chemical equivalent, law of definite proportion, multiple proportions, reciprocal proportions, then without the atomic theory these facts are isolated and unrelated generalizations. Let the theory of atoms be assumed and at once a new light is shed upon them, and they all take their place in a single picture, and will be remembered and understood much more perfectly by the young mind, because the immature mind is fond of the concrete. Even if the atomic theory should prove to be false, yet as a chemical fiction it would not be useless. To quote from Sir Arthur W. Rücker, President of London University, in his presidential address before the British Association in 1901: "Even if convenient fictions they are not useless. From the practical point of view it is a matter of secondary importance whether our theories and assumptions are correct, if only they guide us to results which are in accord with the facts. The whole fabric of scientific theory

may be regarded merely as a gigantic "aid to memory," as a means for producing apparent order out of disorder by codifying the observed facts and laws in accordance with an artificial system, and thus arranging our knowledge under a comparatively small number of heads. The simplification introduced by a scheme which, however imperfect it may be, enables us to argue from a few first principles, makes theories of practical use. By means of them we can foresee the results of combinations of causes which would otherwise elude us. We can predict future events, and can even attempt to argue back from the present to the unknown past." I appeal to the teachers of chemistry present if, in their study of chemistry, the atomic theory has not been a great aid to classifying and connecting the facts of the science.

Why should the atomic and molecular theories be abolished when hypotheses are considered essential in all other branches of science? No one teaches astronomy or geography without the use of La Place's nebular theory and the heliocentric theory of the solar system. Theories of evolution are essential in biology and the facts of physics are incomprehensible without the molecular theory, and the theory of the ether. I could quote from all the leading chemists of the present day such as Mendeljeff, Oswald, Victor Meyer, Sir Wm. Ramsay, Sir James Dewar and President Remsen, to show that the atomic theory has been fertile in results, and as simple in its explanations as have theories in other realms of science.

We must never forget that our high schools are not primarily to prepare students for college, but to give a fair general education to the boy who presents himself for the purpose. Chemistry is a subject to which a good deal of time is devoted, as it begins in the lower school, and is continued for three or four years. After completing such a course the public demand at least that the student shall have a working knowledge of the subject, shall understand its leading principles, and shall have such a knowledge of the terms and methods of thought in chemistry that he can read intelligently an ordinary book in chemistry or a magazine article on the same. I claim that with such a course as that outlined in Mills' *Chemistry for Schools*, which is evidently written under the inspiration of the author of the new regulations, he would be entirely at sea on reading any extended book on chemistry. It seems essential to the new method to

banish all the terms which have formed the vocabulary of chemistry for the last fifty years—instead of substance we have chemical individual, instead of such classical chemical terms as atomic weight, molecular weight, chemical equivalent and combining weight, we have reacting and formula weight, and physical compound replaces solution. These outlandish terms have no status in the literature of chemistry, and such narrow-minded quibbling would fast make the chemical vocabulary a chaos. To attempt to read chemical literature without a knowledge of the atomic theory is like acting Hamlet without the Prince of Denmark. Such teaching of the subject gives students a narrow, distorted view of chemistry, which it would take years to rectify.

Nowhere in his book does Professor Miller state that there is any general tendency among chemists to abandon the atomic theory. He hints that there is a tendency to lay less stress upon it, and to keep sharply separated the facts of science and their hypothetical explanation. If there be a tendency to minimize the importance of this theory among a small group of chemists, is that a reason why it should be at once entirely uprooted from our schools? All the educational institutions of a province should not have a radical change thrust upon them, simply because a small group of chemists has a rather vague, unsettled feeling in regard to the value of the atomic theory. Before rushing headlong upon such a course, schools should wait until a vague tendency amongst a few chemists becomes crystallized into a definite opinion amongst the majority of chemists.

Now I have searched diligently for some sign of this tendency to abolish the atomic theory from the teaching of chemistry, and for that purpose I have read carefully several dozen text-books of recent date on the subject, and have found only three which do not introduce these theories regularly, and make considerable use of them; these three all have their source at the same fountain head. They are "New Requirements in Chemistry," by Dr. Miller, "Mill's School Chemistry," edited by Drs. Miller and Kendrick, and "Laboratory Manual of Elementary Chemistry," by Dr. Kendrick and Mr. DeLurey.

Remsen in his elementary text-books, as in all the others, uses the theory freely; Newth does the same, as does Richter. Jones, of Johns Hopkins, and Smith of Chicago, write along the same lines. I believe Oswald is held in very high esteem by the

chemists of the university, yet he does not see fit to abolish it even from his most elementary text-book, "Conversations on Chemistry." He devotes a whole chapter to it, and I will give a quotation from this volume:

"Pupil. It is as if each element consisted of fragments exactly of the same kind, just as all the marks, or all the frames, are of one kind of material.

"Master. That is exactly the idea that we have for long held on this subject. We suppose that each element consists of small particles which are called atoms; this name implies that these particles cannot be subdivided. All the atoms of the sulphur are similar to one another, as are all the atoms of mercury, oxygen, etc. Now supposing we were to place one atom of oxygen in exact equilibrium, on a balance sufficiently delicate to weigh it, and so arranged our own units of weight that sixteen of them held one atom of oxygen in exact equilibrium, then for one atom of mercury 200 units of such weight would be necessary, for one atom of hydrogen, 1.01, and so on. The combining weights of the elements can thus be regarded as the weights of their atoms, or atomic weights. In fact the former are generally called atomic weights.

"P. Then is all this true?

"M. No one has ever seen the atoms or weighed such a minute quantity as a single one. It is thus an hypothesis to suppose the existence of atoms. But if we do so, *it affords a convenient method of observing the various applications of the law of combining weights, because the atomic theory is very simple and clear.*

"P. But yet we can also get on without it.

"M. Certainly. But you remember that when you learned to do sums you used your fingers as a help, and that was more convenient than keeping the numbers in your head. So it is more convenient to adopt the atomic theory, so far as it applies to the abstract and universal law of combining weights.

"P. Well, this law does not seem to me so fearfully difficult.

"M. Nor to me either; but, to carry out his work, man rightly makes use of every faculty which yields a quicker and quite as accurate a result."

Let me quote from the great Mendeljeff, who towers as an epoch-maker among chemists. In the latest edition of his "Prin-

ciples of Chemistry," he says: "The law of combining weights is formulated with great ease, and is an immediate consequence of the atomic theory; without it, it is even difficult to understand. Data for its evolution existed previously, but it was not formulated until these data were interpreted by the atomic theory, an hypothesis which up to the present time has contradicted neither experiment nor fact, and is useful and of general application. Such is the nature of hypotheses. They are indispensable to science; they bestow an order and simplicity which are difficult to attain without their aid. The whole history of science is a proof of this. And, therefore, it may be truly said that it is better to hold to an hypothesis which may afterward prove untrue than to have none at all. Hypotheses facilitate scientific work, and render it consistent in the search for truth. Like the plough of the husbandman, they help forward the work of the laborer."

Sir William Ramsay and Sir James Dewar stand out to-day as the peers of any living chemists, and as Englishmen we are proud of them. They are not merely chemists, but also educationists of a very high type. They have both had great influence on the teaching of elementary chemistry in England. When preparing this paper I sent each of them a copy of the high school curriculum in chemistry, and asked if they approved of the omission of these theories from an elementary course. Sir James Dewar replied as follows:

"I do not approve of rejecting the atomic or molecular hypothesis in the curriculum of students getting a general education. In a broad, general way science is best treated on the historical basis. That would necessitate beginning such theories during a relatively early period."

Sir William Ramsay is still more emphatic in his statement. He says: "I don't think you can possibly teach anything useful in chemistry without introducing the atomic and molecular theories. Surely the omission is pure inadvertence. An 'engineer' trained with no reference to theory is called an artisan, and is a poor one at that. Does the department wish you to turn out analytical operators? Such a course as you suggest might suit for an analyst who was required to estimate iron in iron ore and nothing else—in fact, a chemical laborer. But you state that the view is that chemistry taught as you quote from the syllabus is intended to form part of a general education."

I merely quote these few leading chemists in the United States, Great Britain, and on the Continent, as typical of the opinion of every chemist of world-wide reputation, whose record I am able to trace, that these theories are indispensable to the making of chemistry clear and simple, and nowhere is clearness or simplicity more indispensable than in dealing with elementary classes.

In my endeavor to find some precedent for our Ontario curriculum in chemistry, I have searched, not only among the opinions of great chemists, and of great educationists, but also in the school courses of other countries, but always with the same result; none see fit to omit these theories in secondary school courses in chemistry. In the school programmes in Britain, France, and Germany, in all the British Colonies, and in all parts of the United States, the atomic and molecular theories are introduced in courses that are not nearly as extensive as is ours in Ontario. In the entrance requirements for Harvard University these theories are introduced immediately after the laws of definite and multiple proportions. The Report of the Committee of the National Educational Association of the United States on requirements for college entrance, has largely formed the basis of matriculation standards into all the leading American Universities. And the atomic theory is mentioned as one of the topics to be studied.

In conclusion I have endeavored to show that the causes of the defective methods of teaching chemistry are due chiefly to the university training of the teachers, the low standard of matriculation, and the unpedagogical methods of the authorized text-book; this defective teaching has nowhere been more marked than in a misuse of the atomic and molecular theories. A crusade was necessary and has been waged with effect by the faculty in chemistry of the university of Toronto, and they have done the teaching of science a remarkable service by calling the attention of the teachers to the matter. In their enthusiasm I believe they have gone too far, and will provoke a reaction. They would abolish these theories entirely from elementary teaching. I believe their cure would be little better than the disease. I find no precedent for such an action, though I have looked diligently in text-books and curriculums of all countries. I can find no support for such a step amongst the writings of chemists, and I do not believe that radical changes of such a nature should be introduced until supported by the majority of chemists.

SCIENCE EQUIPMENT FOR TEACHERS AND SCHOOLS.

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It will be readily acknowledged by all that no branch of knowledge taught in our schools requires so much material equipment as do the sciences. Their continuous development and expansions, too, necessitate constant alterations and additions. To-day it is X-ray equipment, to-morrow wireless telegraphy, and soon it will be wireless telephones. After we get our herbarium started, we must commence an arboretum, and next it will be experimental plots in forestry and agriculture.

Accompanying and keeping pace with this material equipment, there is of necessity a special personal equipment of the science teacher. The ever widening applications of science to technical operations, and to the science of living, require that his knowledge grow from day to day. The fixing of this new body of technical knowledge, as another responsibility of the schools, demands new adjustments of his pedagogy. Step must be kept with new or changing theories. New curricula arranging for new lines of treatment of old subjects have to be met. Indeed, the science teacher's life gets little chance of growing monotonous.

In coming to a consideration of this personal equipment I find myself disposed to follow a weak fashion and hold our grandfathers and grandmothers responsible for a fair share. And yet they had nothing to do with such, any more than all grandfathers and grandmothers have a necessary part to play in the production of good workmen. With science teachers, unlike poets and geniuses, it is hardly a case of being born and not made; it is rather being both born and made. Blessed is the future science teacher if he inherits a disposition to seek in nature for reasons for things, "to give every man his ear and reserve his judgment," to love truth and to be willing to search for it, never resting content with its fractional discovery. Twice blessed is he if the influences of home, boyhood days, school and college add to this natural inheritance the wisdom, skill and sympathy that co-operate in training youth in school classes.

The personal has lately been emphasized as against the material equipment in our new programme of studies. If the signs of the times are read aright a large part—and the part which the greatest number of our pupils take—of the science of secondary schools, at least, is at a new phase, or has returned to an old phase. It may be that, at present, it is more in programme of study than in actual practice; that it is more in the imagination and planning of educational seers than it is in the actual daily doings of the teachers. But the movement surely advances; we are breaking with the laboratory for the open fields; we are having our science modified through the nature study movements; we are outdoor rather than indoor scientists, or at any rate we are bringing the outdoors more into our formal class work. We are again of the naturalist type, but with something added from our laboratory exclusiveness; we are ecologists rather than morphologists; we are science teachers for every one who will so much as enter within the doors of our schools, rather than for the few who elect to take science options. We concern ourselves with every scientific interest. We are less concerned with the systematist and his classifications than with the forms and forces of nature that meet us in our daily lives. It is a good kind of science for the work-a-day world, but it is hard on the teacher. It is the right kind of science, or the best kind we have yet had. It is the kind we would have had for ourselves had we had the choosing. It is the science that our public school teachers must get from High School masters, if they are going to rightly handle nature-study work with their pupils in the future. But where shall we find help in this kind of science? It is not what we have been taught ourselves in either High School or College. It is such equipment as came from without the school.

Fortunate to-day is the teacher who was led aright in his boyhood by parent, teacher, or other good friend, by such an one as sympathized with his "gun-craze" period, and made bird-killing discriminately intelligent and led him into a bird-loving knowledge; by such an one as directed to a revelation in stream life through the good old fishing days; or such an one as introduced him to the common plants and helped him in garden work by showing how to graft, prune, or propagate; or such an one as assisted in the collecting crazes—insect, stamp, coin or what not. Fortunate is he, for he does not need at this time of changing pro-

grammes of study to wrench himself into readjustment; for, as and what a boy has been taught so and that will he, as a teacher, teach. He does not need to be warned that the nature study spirit is to prevail in the handling of this work. A teacher with such an experience has a good substitute for much laboratory practice, for he can give instruction in things that will form impulses and good habits as far reaching as life itself.

But college science, acquired in laboratories, is necessary too. This brings the teacher systematized and necessary knowledge, and proper scientific attitude and method. Fortunate will he be if his pedagogic skill can interfuse or balance up his nature study spirit with this scientific attitude and method. We shall not hear of such an one carrying on a four weeks' post-mortem examination over the orthopterous corpse of a poor pickled grasshopper; nor of the training of High School pupils to answer questions for University Fourth Year Biology specialists on their Senior Leaving examination papers. Part of the fault for this kind of science teaching lies with the science departments of the university, part with our training schools, and part with the individual. But as this is all going to be made right soon by Boards of Governors, Educational Councils, Schools of Education, etc., further criticism must be deferred.

But the up-to-date science teacher doesn't finish his Science Course at the University with the getting of a degree in Arts. He must put himself in the way of new discoveries and methods, not only through books and journals but by special courses. Eternal summer courses—unless one is a genius who can find problems for himself and work them out alone—is the price of progress. The future promises well for this movement in Ontario; our University has established a fair beginning and the authorities would seem to be willing to acknowledge credits for the work. Perhaps the best stimulus in this would be material encouragement from school boards, either directly by paying part of the expense, or indirectly by addition to salary. The Government grant, too, could be so regulated as to recognize such progressiveness. The work at biological stations should naturally be taken as University equivalents as should also work at our Agricultural College. Every science master should be required to take a course there; it is the technical school concerned with our chief industry; it shows physics, geology, chemistry and biology

applied to agriculture; it gives a rounding off and application to university science that is of greatest importance to nearly everybody—be he country or town dweller—in the land.

But there is another equipment that is very important. Our science text-books should be pilots to proper treatment and proper limitations of a subject. Some of them fulfil their functions very well, although there is not one of them that has not been condemned, at least in part, and railed against. There is not the least doubt that the High School Zoology has had a bad influence in our schools; has misguided the study of animal life and misinterpreted the meaning of zoology wherever it has been used; it is a splendid example of and warning against improper co-relation between college and secondary school. The High School Botany (Part II.), is no longer the botany needed for the prescribed work; it still has a use, but the physiological and ecological phases of plant study narrow its application considerably; the High School Chemistry would seem to have worn through a phase of the teaching of chemistry into another that the book is not adapted for—even after its revision. Concerning the suitability of the texts in physics, there is less adverse criticism. But in the whole matter of science texts we have been singularly insular, too long self-satisfied, or too early retired from protesting. Science, of all school studies, has been perhaps in most rapid pedagogic development; in Britain and the United States this has found expression in outpourings of new texts. We have shut ourselves off largely from this by our exclusive texts. May be, of course, it is a blessing in disguise. We may have escaped turmoil and confusion and be ready now for a calm conservative adoption of the best product and practice.

For experienced teachers there is not really much need for text-books; for young teachers there is, but the use of them is only a phase in a development towards a large independence. The best kind of teaching of chemistry, physics and biology in secondary schools can be done without them. There should be reference books in any number and one practically as a standard, but no small, narrowing, single text.

What would help teachers most, is an official gazette from the Department or the new School of Education when it is started, in which suggestion, criticism, and example are offered by inspectors, professors and teachers. This is such a scheme as is

employed in Quebec, Nova Scotia and the Australian States. Of course school journals are helpful but very often their interest is too indirect or remote to be effectual in one's particular case. Our own gazette could help us to make a start with or carry out the herbarium, arboretum and museum that the regulations advise; could let us know what is being done in the same lines by our co-workers; could suggest certain lessons for all the schools at a certain time, and advise us of the best practice in other countries.

School principals, school boards and school inspectors should be considered as influences for or against successful work. From our principals there should be acknowledgment for that part of the service which is not specified by a teacher's written agreement nor covered by his salary; the coming to work long before school opening to prepare for the day's operations; the staying long after school closing to put away the tools and to perform that janitorial work, that no janitor can be found for; the continuing of the service into Saturday and holidays in field excursions and collecting trips. From them, too, there should be such fair time table arrangements as to allow for an odd spare period or an odd holiday for visiting other schools. Members of the School Board generally perform their best offices when they leave alone, or only pleasantly disturb by increases of salary. Very often there are practical men among them who can give valuable help in planning and securing equipment; but better than all, sympathize with one's aims and efforts from a proper appreciation of the value of scientific knowledge and training in their apprentices and workmen. Inspectors can do much in criticism and suggestion. They see much that can be recommended and much that may serve as a warning; they can help towards proper time table adjustments with principals, and equipment adjustments with school boards. If we could have from them, less infrequently, bulletins of general instruction, our cause would be helped considerably.

A word about the raw materials that science teachers have to work upon. The pupils are a very essential part of a school equipment; I have a suspicion that if we did not have them our occupation would be gone. But this part of the equipment is difficult to select; we must take it as it is. Pupils must be dealt with more as individuals and not as classes now, and the new programme of science studies encourages this. They are workers with

us now and not under us. The partnership should be good for both, making for independence and individuality on the part of the boy or girl, and for a winning dependence for the teacher. There are few boys or girls who cannot be won to science and thereby stimulated to wholesome interest nowadays.

Science teaching without science laboratories is no longer warranted nor permitted. Great advancement has been made in this line, even to almost perfection in lighting, ventilating, plumbing and work tables for individual experimentation. Especially in the United States is this seen. The British teachers sent out recently through Mr. Mosely invariably remarked it. But the correct measure of good teaching in science cannot be made from the laboratory alone; in one of the finest laboratories in a High School in Chicago, equipped with aquaria, microscopes, lanterns, charts, etc., I saw as poor a quality of biology teaching as could be. And no doubt there is teaching of the very highest rank in laboratories of the poorest outward and visible equipment. It is the teacher that counts most in every case. But a good teacher in a good laboratory should be able to do the best teaching. He should not be over-equipped, as there can easily be a misapplication of energy from having a highly organized outfit to care for; the simpler the better; the fewer non-essentials in the way the better.

Closely related to this question is that of storing apparatus. Efficiency is gained or lost by good or poor arrangement for this. The ability to lay one's hand on the thing wanted at the moment wanted makes for pleasure and success. A system of uniform storage boxes on some unit scheme such as that used in recent book case construction is good for keeping the hundred and one things needed; filter paper, litmus paper, parchment paper, ready-made glass elbows, joints, jets, pipettes, stirring-rods, rubber tubing, lead tubing, glass tubing, funnels, beakers, flasks, wire gauze, asbestos matting, retorts, Bunsen burner accessories. Each article should have its well labelled box. For chemicals that have to be carried in considerable quantity stone mustard jars are good; for chemicals carried in lesser quantities, wide mouthed pickle bottles answer well; stock supplies of the acids should be kept separate in a special compartment, and stock solutions of chemicals in winchesters. As far as possible uniformity in size should be secured, as it makes for economy of space on the shelves.

Books are also an indispensable part of the science equipment. I do not refer to the books down town in the Public Library, nor those 1880 editions upstairs in the school library behind a locked door, the key of which is in the hands of the caretaker, may be, and in a locked bookcase, the key of which will not work; but to the science-working books. They should be on a shelf at your hand, well selected and up-to-date. The pupils should be made to feel that they belong to them, and that they are pleasing their teacher when they are making fair use of them. Such books look best when they are marred with thumb marks, stains of the chemicals and even broken backs; if sometimes one is lost or falls to pieces, this only proves that it is worth while to keep books on the spot where they are wanted; a book has paid for itself when it is worn out. For when I want a book of science for myself, I want it directly; and when it is for a pupil I want to put it into his hand red hot, as it were. They are legitimate work tools for apprentice and master.

What books should be included in the shelf? All good usable ones; all texts published by our accredited American and British houses and approved by adoption in good schools; bulletins from the United States Department of Agriculture, Washington; Dominion and Provincial publications, Bureau of Mines reports, Geological Survey reports, Macoun's Bird and Plant catalogues. A periodical or two should be included; the "Scientific American," if possible, "School Science and Mathematics," and these bound into volumes at the end of the year.

And how would I secure this equipment? There is some of it, such as good books that are stored for safe keeping in secured book-cases, that one can conscientiously steal; if one cause a book to be used twice in the place of once, he enhances its value 100 per cent. There is some of it that comes through the patronage of our parliamentary representatives, that can be begged; and part of it, such as scientific periodicals, can be borrowed through some of the pupils, or loaned by the teachers. But the main support of the equipment should come from a laboratory contingency fund that the science teacher should have a pretty free hand in administering.

A work bench and vise with a good assortment of the commoner tools is almost indispensable. The outfit should be preferably in a stock-room adjoining the laboratory and at a well lighted

window. Small supplies of all sorts of nails, screws, bolts, nuts, washers, wires, hooks, glass tubing, sand and emery papers, should be kept in drawers or small boxes. A supply of paint, oil, dryers, and turpentine, with brushes, can be profitably employed too. Such an equipment does service in different ways; it enables a teacher in a hundred ways to maintain a proper up-keep of appliances such as a good engineer in a factory strives for. It stops the wastefulness that is sometimes charged against the science departments in our schools. There must be thousands of dollars' worth of unused apparatus in our Ontario High Schools and Collegiate Institutes that could be made of service by a little repairing; there are thousands of poor lessons because of this disrepair. The statement that "our apparatus is not working rightly, but this is how it should work," is too common an occurrence; it brings science and science methods of teaching into disrepute. There are thousands of dollars spent, too, in buying new apparatus when all that is wrong with the old, is that it has got a bad name from a loose screw, and has been relegated to the attic or the top shelf to age up with rust and dust. We should have a provincial clearing house for this branch of the "old metal" business somewhere in the basement of the Normal museum with a periodical rummage sale of everything that has not been used for say five years. It might decrease departmental grants, but it would have a wholesome effect upon science teaching.

Besides these mechanical and business advantages in having a good, convenient, accessible repairing equipment, there are large educational uses and possibilities. It brings in a touch with the technical and practical. It may not be for all the boys directly, but it will discover one who wants "to do things" for you and for himself. They will stimulate you and the students, and within themselves will develop power—the large aim of education. It is not an education in classes, nor for examinations; it is for a higher quality and aim; it is education of an individual and for life. And sometimes it is the bad boy or the careless boy that you can get a grip on, or rather that gets a grip on himself, through the work bench. Then teaching becomes glorified. I would have them make shelves, paint, repair broken test tubes, over-haul herbarium, bird skins, maps, disused physical apparatus; and I would pay them for some of their work if I could,

out of a laboratory fund provided by the board or science classes.

Science equipment for teachers and schools is a two-sided affair. On the one side there is the teacher who must begin the training for his work in youth and be ever progressive and vigilant, sympathetic and inspiring, unselfish of time and energy. On the other hand, there is the laboratory with its manifold appliances to be cared for, renewed and repaired. Happy is the teacher who does not grow weary in caring for both. Fortunate is the school and community with such a teacher.

CLASSICAL SECTION.

"READING" IN LATIN AND GREEK CLASSES.

F. C. COLBECK, B.A., TORONTO JUNCTION.

We have before us a good programme. As usual the classical masters of the schools and the learned professors of the colleges do their part. This year we have a new feature in the symposium on the "Value of the Humanities" to-morrow afternoon, which is timely, and I am sure will be interesting. This afternoon we begin with a discussion of the Teaching of Translation, by gentlemen well qualified by scholarship and experience to deal with this important phase of our work. I crave your indulgence while I spent a few minutes on a topic which is germane to that, which is very closely associated with it in practice, and which naturally and logically preceding it, may serve in a manner as an introduction. My topic is "Reading"; and by reading I mean arriving at an understanding of an author's meaning.

Translation has long been regarded, and with good reason, as a valuable exercise in linguistic and literary training. By it, while acquiring a knowledge of a foreign tongue, the young do much to develop a power of expression in their own language. To make a good translation one must be able to express himself well, and be a good judge of equivalents in the two languages, so as to reproduce faithfully what his author has said. Since translation is the reproduction of an author's thought, the translator's first concern is an understanding of that thought. This understanding should be reached by following the author in a natural and rational way in the development of his thought. This process we shall call *Reading*.

A boy may understand a passage, and feel that he understands it; and yet be unable to translate it, even to his own satisfaction. In the sentence: "*Britanniae pars interior ab his incolitur quos natos in insula ipsi memoria proditum dicunt*," the use of the relative *quos* as the subject of an infinitive, which is the subject of another infinitive, which is the verb of a noun clause, the

object of the verb of the adjective clause introduced by the *quos* gives rise to an awkward situation, which a boy feels keenly, even if he does not feel his difficulties increased by the shade of meaning in *natos*. A student may have a clear perception of the import of Horace's simile in

“Monte decurrens velut amnis, imbres
 Quem super notas aluere ripas,
 Fervet immensusque ruit profundo
 Pindarus ore.”

and still be much perplexed in making a happy rendering of the metaphorical terms in its apodosis. By a few apt questions the teacher may satisfy himself as to the understanding of such a passage, and yet sympathize with the student in his reluctance to attempt its translation, or in his failure to make a good one. What to do with him at this stage does not concern me at present, but falls within the sphere of those who come after.

To translate what is understood may be difficult; to really translate what is not understood is essentially impossible. A boy may give what he calls a translation of what he understands in the vaguest of ways, seen darkly; even as his elders in private and in public, too, sometimes advance their views regarding matters of which they are manifestly ignorant; but neither act is justified by benefit to him who speaks or him who hears.

Since comprehension should precede expression as inevitably as cause precedes effect the teacher's work and methods should ever encourage and develop the habit of looking to the meaning first, and making the translation something entirely distinct and subsequent to that, with a value of its own. Indeed the student may well be brought to realize early that, while reading and translation are constantly and intimately associated, the translation is something which does not necessarily follow at all; that for him there may be comprehension and appreciation without it.

I know that an author read is made the basis of much instruction under various heads. The passage illustrates much in etymology and syntax that is of interest and concern to the learner. There are various matters of knowledge embodied in the passage he is reading *which he must attend to, but which are not essential to his understanding of it*. These have their time and place; but

while the mind is busy with the matter of first concern—the understanding of the passage—nothing except what has an essential bearing on that should be considered. To distract and confuse is to weaken. Let the attack be concentrated.

Latin and Greek are difficult. We all know that. Even those of you whose natural aptitude is greatest, and whose scholarship is fullest, recognize that, I am sure. To the average boy they are decidedly hard; they have this reputation, and this accounts in part for the fact that in these days of many subjects they are often passed by. There are other reasons, but this is one. The difficulties encountered by those who do enter upon their study accounts, too, in part at least, for the fact that some, after running—often not too well—for a season, desist. In these days of haste and short cuts, when so many are impatient of persistent painstaking application, in these days of easier options the time and effort necessitated by their inevitable difficulty prove more than some are willing to give. Is the difficulty alone to blame? Do we classical masters always do as much to commend our subject as we might?

It is not mere difficulty, but the difficulty that seems insuperable or that does not arouse to effort, that blocks one's way. Despair or indifference paralyzes. When we feel that a thing cannot be done, or is not worth doing, we are not likely to strive hard for its accomplishment. Difficulty does not necessarily deter.

“The stern joy which warriors feel
In foemen worthy of their steel,”

has its counterpart in the breasts of those who face not brand and shield; but who, as men of peace, face difficulties that shrewdly test strength and courage. It can be felt by a boy in the intellectual struggles of the study or class-room as surely as on the campus, or in “frequent strivings,” such as John Ridd mentioned not to his mother, who was too soft-hearted, nor to his father, who was not soft-hearted enough.

The difficulty must be realized, and there must be the feeling that it requires effort, is worth the effort, and will prove vincible before the effort; then the worthy spirit rouses itself to the attempt, and with victory comes elation, sense of power, and hope, the earnest of coming achievement. The classical master's work

is day by day so to direct the learner's work that he may not be discouraged by difficulties many and grave, but will approach them in such a way as to find them commensurate with his strength when he does his best in an intelligent way, and to realize that to-day's work renders him stronger and more ardent for that of to-morrow. In trying to read a Latin or Greek author—not too difficult—difficulties that test his ability and patience constantly meet a boy. It is of great importance that his method of attack be such as to conserve energy, and make his successful effort a matter of true discipline. There are known methods of which this is not true. There are improper methods of study which neither arouse interest nor develop strength. We have all heard of helps to read that are not stimulating. I remember a fellow-lodger in my High School days into whose room I would sometimes stray. I have watched him trying to read a passage of Homer, and have a vivid remembrance of how he carried on the process. He had a book in each hand. In his right hand he had a book with a red cover, which bore the device of a torch and the motto "*Capio lumen.*" But alas! its light was to him but darkness. In his left hand he held another book with a blue cover; this also had a device which was intelligible without a motto. Perhaps some remember what a good picture of a key it was. I noticed that as he carried on his bi-lingual process he glanced at the books alternately, the blue coming first. He proceeded after this fashion: "*Speaking thus ὡς εἶπών, he left them there τοὺς μὲν λίπεν αὐτοῦ, and went βῆ δὲ, among the others μετ' ἄλλους,*" interjecting at frequent intervals the words, "*Darn this Greek, I do hate it.*" No one who heard his earnest tones, and saw the expression on his face, usually so sunny, could doubt his sincerity. His method was unnatural, bad, fruitless. It was a sham process which gave no real insight into the passage he was supposed to read, developed no power to read another, afforded no pleasure in the work done. The next day he might stand up in his turn and do his share of so-called translation, thanks to memory chiefly. Afterwards questions might be asked, some of them touching matters essential to a real reading of the Greek, others interesting and desirable for other reasons. His utter inability to answer the belated questions of the first class, showed his inability to read the passage he had translated, forsooth. Had he been given an opportunity of showing his comprehension at first, time would hardly have been taken up.

The gentlemen who have Translation as their topic may have something to say to us as to the value of translations of a high grade of excellence used at the right time and in the right way to raise a boy's ideal of translation. I am concerned now with how a boy reaches his author's meaning, not how he is to express it. I am not unaware that there are teachers and teachers of teachers who consider that these helps to read have their proper use. It is hard, I fear, to control the dose and interval of such a stimulant. The user is apt to become the victim, as was he of whom I spoke. The habit is not a mere tradition. It is not to be ended by good advice or by prohibition. Can it be rendered futile so far as preparing to pass muster in class is concerned? I think it can. The master may proceed at once to test the intelligent understanding of the text in its original form. This I hold is the most effective check on improper methods of preparation. It is more than that. Every lesson is a lesson in the highest sense. The class method is what the study method ought to be. If the teacher's work is to be what it should, it ought to be such as not only to test the work done, but to suggest how work ought to be done. Reading in class—whether prepared work or sight—ought to be an object lesson. The teacher is there, the more enlightened reader, to lead the way in the discussion of points of difficulty or interest. If difficulties can be solved by falling back on past experience—and in the majority of cases they can—the pupils are to be lead to see that this is so. The teacher is not there to tell him things he really knows, or to do for him things he is quite able to do for himself; but working with him, to guide him as unobtrusively as possible in his efforts to read the author's meaning, recognizing in the process the difficulties in their true dimensions and working out an intelligent solution of them, opening up the passage much as he might a difficult passage in English, *mutatis mutandis*.

The details vary, of course, with the grade of the class, the nature of the passage, and the acumen of the individuals; but from the lowest to the highest, whether reading a sentence in a hand-book, or a noble period, verse, or strophe from one of the great masterpieces of the past, the aim is to lead the learner to see with his own eyes what is expressed before him in the text. The boy should come to feel more and more that a Latin or Greek sentence is not a sort of Chinese puzzle, nor a secret cipher to convey thought only to the one who has the key, but an entirely intelligible expression of thought, differing, it is true, in much more

than vocabulary from his native speech, but just as clear to one who approaches it in the right way. It can be understood. It must be understood to be translated, rather than translated to be understood.

Sometimes a pupil thinks a passage contains difficulties for him when it does not. If so it is of importance to bring him to see that. A few days ago a girl assured me that she could not understand a certain passage in Virgil. I questioned her on a few points on which the understanding of the passage would turn. She answered the first correctly and I assured her as to that. So it was with regard to the others. I told her nothing except that her answers one by one were correct. Did she understand the passage? She said confidently that she did. One thing we have to do is to develop a proper confidence on the pupil's part.

On the other hand a student may think that he understands a passage when he does not. Permit me to illustrate this. In reading Caesar not long ago a boy assured me that he understood the sentence, "*Leporem et gallinam et anserem gustare fas non putant.*" I realized that *fas* might prove a "stumbling stone and rock of offence," but I elected on that occasion to take him at his word, and asked him to translate it as he understood it. He did so as follows: "They do not think that the hare, the hen and the goose taste right." We had our laugh and our opportunity to reflect on the change of taste (gastronomic) on the part of the inhabitants of that island, but now the real nature and construction of *fas* had to be considered, and also the construction of the other nouns. Had I followed in this case the method I have been trying to set forth time would have been saved. His translation showed me that he did not understand the passage, but it did not show that to him at all.

Sometimes the difficulty turns not on the use of a word but its meaning. This may be the case in English, too. The stanza,

"The wish, that of the living whole,
No life may fail beyond the grave,
Derives it not from what we have
The likest God within the soul?"

is obscure unless the reader perceives that the common word *derives* has an uncommon meaning here, but as soon as he perceives that all is clear. So we find it in our work. A student who

realizes that he must learn the meaning of a new word may meet an old familiar word with a new meaning, and have trouble or make a mistake because he does not recognize that fact. Let me cite an instance of the latter. A class reading Xenophon had read how Cyrus, hearing that the password of his Greek mercenaries just before the battle of Cunaxa was *Ζεὺς Σωτήρ καὶ Νίκη*, expressed his satisfaction in the words, "*Ἀλλὰ δέχομαί τε καὶ τοῦτο ἔστω.*" Then followed the sentence, "*ταῦτα δ' εἰπὼν εἰς τὴν αὐτοῦ χώραν ἀπήλαίνευ.*" The word *χώραν* had occurred many times with the common and secondary meaning of *land, country*, etc., while here it has its primary meaning of *one's proper place*, etc. As in the preceding instance, I allowed an assurance that the passage was understood to stand, and asked for a translation, which was given, as follows: "Saying this he rode off to his own country." When asked whether this was not strange conduct on the part of a prince keen to win a throne by a victory, and apparently confident of it, the girl who had made the translation admitted that such was the case. She could not see where she had misinterpreted the passage. Had *χώραν* any other meaning? She found it meant also *position, post, one's proper place*. At once she saw that the meaning of the sentence was changed, and that Cyrus acted as one would expect.

Sometimes a reader is mistaken as to the location and nature of the difficulty that locks his interpretation. A pupil did not understand the sentence, "*τοῦτο δὲ οἱδὲν ἄλλο δύναται ἢ ἀποδρᾶναι.*" He was sure he could not understand it aright, because he could give *τοῦτο*, the first word, no part in its meaning. He had thought at first that *τοῦτο* would be subject, but its meaning (it referred to a course of conduct) would not blend with that of *δύναται*, which meant *to be able*. There was no other construction possible, either. Apart from that he would supply *ποιεῖν* or some such infinitive with *δύναται*, which would *οἱδὲν ἄλλο*, and he would translate "He can do nothing other than run away," or "nothing else but run away." He was sure, though, that this was not right. It might be right to insert *ποιεῖν* (ellipses do occur), but it could not be right to ignore *τοῦτο*. I quite agreed with that. We would go back to the beginning. He had rejected his first thought that *τοῦτο* was subject, because the meaning it *certainly had* could not go with the meaning of

the verb. It meant *to be able*; we met it often. Yes; but was it possible it had another meaning which would go with *τοῦτο*? That had never been thought of; but why yes? It meant *to amount to, to mean*. The sentence is clear at once. Its translation is easy: "This means nothing else than running away." Next time he would be more likely to look more closely to the possibilities of a word whose meaning he may have known for a long time. You all know, however, how often a good, a striking lesson must be repeated sometimes. Patience must not be exhausted with seven times.

Permit me to illustrate one more point. An intelligent boy who had studied Greek a very few months found difficulty in understanding the sentence, "*ἀνεστησαν οἱ Ἕλληνες καὶ εἶπον ὅτι ὦρα τοὺς φύλακες καθιστάναι.*" After *ὅτι* one would expect *ὦρα* to be the subject of a verb, and there was no verb except an infinitive. There should be a finite verb after *ὅτι*. Yes, he thought so; he took *ὅτι* to be a conjunction. If we assumed that it was a case of ellipsis, what verb would he suggest as most likely to be omitted? He suggested *ἔστι*. Was the sentence intelligible then? Quite so. Had he thought of this solution of the difficulty before? Yes. Why had he not adopted it? He was uncertain. He did not like to venture on taking a liberty with the text which to you is of the slightest and *inevitable*. Only this prevented him from feeling confident where he was all uncertainty. This very simple, actual occurrence illustrates what we often see in our classes—this failure to feel as much at their ease, as it were, as they should. So far as we can develop a feeling of due confidence we are doing a good work. Difficulty becomes less when one is freed from paralyzing distrust of self.

Supplementary to reading prepared work sight reading is invaluable along this line. When a boy comes to realize that he can read Latin or Greek he has not prepared, he begins to realize that he is making real headway. From a very early stage he can do so if suitable passages are placed before him. I have no doubt but that most of you have found your beginners in Greek read readily, intelligently and with keen interest and positive pleasure at sight much of the continuous Greek introduced as early as lesson XIII. in White's First Greek Book, and continued throughout the book. These passages afford suitable material at that stage. They are based in vocabulary and idiom mainly upon what has

been already done. There is, however, enough of what is new in both to give zest to the task, though not enough to discourage. The authors of recent books for beginners in Latin have followed this lead to some extent, and might, I venture to suggest, have gone farther in this direction than they have done. In preparing a set lesson the student meets difficulties involved in a recurrence of what he has had before and has forgotten or remembers vaguely, or in what is new. Take the vocabulary, for instance. I sometimes send a class to the board in connection with a reading lesson to make word tests, one, say, containing words which they have had before, and recognized as such, but whose meaning is forgotten or apparently inapt, and another containing the new words. Of the new words some, generally, are cognate to others they have had. This they have often discovered for themselves even before consulting a dictionary. Sometimes, however, it is afterward. Sometimes they have not observed it at all. They can see clearly that much of the work done would have been needless if they had not failed to draw upon their past experience to the full. Anything that tends to strengthen, then, a sense of reliance on past experience and acquirement, and to quicken one's command of it is of great value. It saves time, it develops confidence, it gives a sense of power. This sight reading does in an eminent degree. If the passage is at all suitable to the student his past experience, if made the most of, *will carry him far*. The necessity of self-reliance is manifest and urgent, and this urgency is a spur to quicken the perception and the memory.

I had intended to say something of my experience this year in reading with my class a speech of Cicero in its entirety at sight, but this paper has already passed the limits I had set and I must close.

Perhaps some of you who studied English literature in a good school thirty years ago had an experience like mine, and remember how literature, grammar and philology were taught *paribus passibus* under the name of literature. When in the entrance class, I read Gray's Elegy. A good teacher of to-day—some then, too, no doubt—could find in the picture of Eventide in the opening stanzas much to interest a junior class even. The curfew bell, the homing cattle, the returning plowman, these things are the sounds and sights of evening. Any boy or girl who has seen a cow-path across a field or woodland will say *winds* is just the

word, and that *plods* is the aptest of terms for the heavy, unelastic tread of the tired man. Even the solemn suggestiveness of the metaphor of the opening line can be felt by the young, telling of the passing of another day to one who in God's acre thinks of men whose lives are gone. These things the teacher of literature is concerned with. How did it go with us? In a note-book we wrote the derivation of all words (A.S., Latin, Greek, French, German, etc); we parsed nearly all the words; we analysed the passages; we had, I doubt not, interspersed some discussion of what it all meant. Most of this was in no way helpful to our understanding of the poem. Taken then, and in that way, it was positively and greatly detrimental. I know that all English teachers did not proceed in that fashion then, as I soon found out to my delight and benefit; but many English masters had not yet learned that in reading poetry or prose as literature with a class the teacher should touch on those matters—grammatical or otherwise—that have to do with the understanding and appreciation of the passage, and these only, leaving other matters to the proper place and time. Have the classical masters learned the same lesson as well? I know that the cases are in some ways different. With a language one is learning, and in which he has so much to learn, there are many things in nearly every sentence to which attention might well be directed, on which stress should be laid. The temptation is to attend to all these things at once. I have been trying to plead for what I feel to be a more excellent way. If half an hour is to be spent on a chapter of Cæsar, let fifteen, twenty, or twenty-five minutes of that time (according to circumstances) be spent on reading it, raising all points on which meaning depends, and no others. Then the remaining time can be spent on grammatical drill which is so necessary. I do not advise less accuracy of grammatical knowledge; but I do believe in a time for everything and everything in its place. I also believe in reading in the first place.

THE UTILITY OF CLASSICAL STUDIES FOR THE LAWYER.

(One of the papers in a Symposium on the benefits of the Humanities as
training for the professions.)

THE HON. JUSTICE RIDDELL, TORONTO.

When I was asked by you to take part in a symposium I thought it but right that I should read again the classical accounts of the symposium to qualify myself for the part. I read then the symposium of Plato and the symposium of Xenophon, and found that in Athens the symposium took place in the evening in a private house, after a good dinner, where the participants were expected to do their share in disposing of wine of varying strength, that the laughter maker was to be expected to drop in at any moment, that the meeting might be broken in upon by a komos, led by an Alcibiades, that the participants were all men, and that their intellectual contributions were understood to be extempore.

As I knew that this symposium was to meet in the afternoon, in this public building, no dinner having been provided, that there was no hope of wine even of the weakest mixture, that the jester would be *de trop*, that alas no Alcibiades could be expected to break in with his handsome, graceful, graceless presence, and that ladies would be with us, I recognized that in true classical style the principle of "*lucus a non lucendo*" had been followed in dubbing this gathering a symposium, and, therefore, I determined to reduce to writing all that I might wish to say.

There was another reason why I pursued this course. While by some the life of a Justice of the High Court is looked upon as a life of ease, and an appointment to the Bench is considered a hint to take life easier, still we have enough to do, and it is not every judge who is so fortunate as he of whom it is said that when he received his patent he sold his library and bought a new gun.

And let me premise by saying that I entirely repudiate all claim to speak of classical studies as an expert—my own favorite courses in the University were mathematics and the natural

sciences—I can only speak as one who, without any special training in that regard, has for years dipped from time to time into the inexhaustible well of Roman, and especially of Greek, literature.

And I aim not at originality. I adopt without any qualm the thought and the language of others where it meets my purpose and where this enables me to say more clearly what I have to say.

I have some difficulty in discussing the subject assigned to me—arising to a certain extent from the ambiguities, latent and potent, in the language used to express the subject itself.

One of the most useful of the maxims which have been laid down for the guidance of those who are about to engage in any argument or discussion is “define your terms.” What is meant by the Humanities? Of course, upon the revival of learning, those who looked upon the cultivation of classical literature as the most valuable instrument of education in opposition to those who clung to the ancient methods of the scholastics were styled Humanists, and their study, Humanity. But the word has been narrowed and widened in its application. In a Scottish University a Professor of Humanity is a Professor of Latin; the Professor of the sister language is a Professor of Greek; and that though it was the study of Greek which originated the school of the Humanists.

Bacon suggests a division of human knowledge into (1) Divine Philosophy (Theology), (2) Natural Philosophy (Natural Science), and (3) Humane Philosophy or Humanity. And this is not unlike the nomenclature of the 18th century when the Humanist was one who showed a blind zeal for the classics as the sole educational subject as opposed to the Philanthropist who asserted the value of mathematics, natural science, modern languages and history. Many modern writers again use the expression *studia humaniora* as synonymous with elegant literature or *belles lettres*. Which of these am I to select as showing the meaning to be attached to the word Humanities? Not the narrowest—Latin alone; nor that almost equally narrow, elegant literature.

Humanities includes the classics, but is not synonymous with the classics, and *a fortiori* not with one branch only. No definition can be given to the word which will exclude Greek, even if we do not go so far as to say with Gladstone, that Greek learning

is the main as well as the most arduous part of that study which received the well deserved name of Humanity. Nor, indeed, can we adopt the broader but still narrow definition with which the word began its progress, at least in non-classical times (I do not discuss the meaning and application of the Latin "humanitas"), and restrict the meaning to the Latin and Greek classics. I do not know that Bacon was so far astray when he indicated that, leaving aside the study of things divine, and the study of the physical side of nature, including therein that which lies at the root of all accurate and scientific study of such physical side—I mean in mathematics—all that is left is Humanity. That would give us all polite literature, grammar, rhetoric and poetry, including the ancient classics, but would exclude philosophy, mental and moral mathematics, and the natural sciences. As generally understood, logic and history will be included, and the modern languages excluded.

This appears to me to be the sense in which the expression is generally used, though, indeed, it is doubtful if a person using the word has, in one case in ten, any clear idea of the meaning to be attached to it. It is a convenient and vague and a conveniently vague word. If we adopt the broad and comprehensive definition, it seems to me almost too much to expect one to discuss the value of such a study as a preparation for professional life—that is, to so discuss it from the many points of view which present themselves. I, therefore, confine my attention—as, indeed, the subject invites—to the classics. To show why and how "the classics" came to be so named would lead to an interesting historical pedagogical and philological enquiry; but we all know "the classics" without a defining adjective, means Latin and Greek. These have been the object of study in the motherland since ever there were universities and schools; and until very recently they were practically the studies with which one desiring to enter public life, or a professional career, armed himself. They held their own with what was formerly called science, that is, metaphysics, in the olden days; and not till science in the modern acceptation of the word—that is, natural science—had made the enormous strides that we have seen almost in our own day, did they lose their comparative importance. The classics are now, in the minds of some, a Cinderella, who must, indeed, have a seat at the fire, but who must not receive any of the endowment of her more dashing and up-to-date sisters. Her consolation is that she does not need the costly attire—I had almost said "*persicos apparatus*" of some of the rest of the family: a book supplies her

humble wants, though, indeed, like all Cinderellas, she must have, to reach the summit of her desires, a man. A book and a man will make a whole department of classics, without further equipment.

But was it all a mistake to suppose that one who intended to practice law, for example, was well equipped for beginning the study of his profession, when he was thoroughly grounded in Latin and Greek? The answer to that depends upon what the object of preparatory studies is. If I were asked what department of University study imparts the greatest amount of information, knowledge of fact useful to a practitioner of the law, I should say without doubt or hesitation, natural science. Modern life has become so complex, mainly due to the advance of the natural sciences, that we are met at every point by circumstances, facts, accidents, which can be comprehended only by our having a knowledge, incomplete it may, indeed must, be, of the modern sciences dealing with nature. A mind well stored with the elements of natural science has an immense advantage, so far as knowledge of fact—information—is concerned.

Mathematics, again, cannot be despised. Speaking for myself, I pity anyone who has no knowledge of or training in mathematics. To my mind, one who is ignorant, say, of the infinitesimal calculus fails of one of the keenest delights the human mind can feel. The accuracy of thought and of terminology (and these are akin and may not be separated) induced by a course in mathematics is of great value. But law is neither a knowledge of facts, nor is it necessarily logical argument.

In law we deal with facts very largely, indeed, but there is much more in a good lawyer's equipment than a fund of erudition—a mind stored with a mass of knowledge. That has its value, and a great value; but there is something higher and more valuable than even encyclopedic knowledge. And logical analysis and argument, valuable as they are, are not all. Law is not an exact science. Recently it has been laid down, both in the motherland and in our own, that if there be two propositions, A and B, so connected logically that if A be true, B will also be true, it by no means follows that if A be true in law, B will also in law necessarily be true. A proposition is not necessary authority for another that seems to flow logically from it.

As human nature transcends logic, so law. I claim for my mistress the law, all knowledge for her province; there is nothing one can learn that may not some day be of advantage in the practice of the law. I claim for her, too, the highest powers of

reasoning and argument—there never have been greater masters of acute ratiocination than the English common-law lawyers. But law goes away far beyond these. Law is the product of the efforts of man toward an ideal state of justice. Like all things human, it is defective, and at all points shows the defective sources from which it is derived: the failings of human nature appear here as elsewhere; the bonds of a past are as strong here as in all else.

Law cannot get away from its ancestry, as we have in our bodies and minds some of the traits descended to us from the ancient Briton, or Roman, or Saxon or Celt, so in law are relics here and there of what was thought and what was doomed by our ancestors.

The study of the law is the study of human nature on almost every side, and in almost every aspect; the growth of the law has been the growth of humanity, and that mind comes to the study and practice of the law best equipped, which comes equipped with a knowledge of and sympathy with human nature, from whatever source derived.

Man is the same in all ages, allowance being made for environment.

And it is my firm conviction that there is no other object of study which so broadens the mind, and so causes it to appreciate, to know, to sympathize with human nature as the ancient classics. Incidentally, too, the study of Greek and Latin carries with it many of the advantages which other studies are supposed to give.

Not without its uses is the thorough drill in the grammar of these languages, and prose composition. (I am not qualified to speak as to verse, but I am able to say that one of the best lawyers of my acquaintance, the chief justice of my own division, had in his time at the University, and has now, great skill and facility in the composition of Horatian metres of unexceptionable quantity and rhythm.)

These give an accuracy of expression; they train the memory as well, and are thus an excellent discipline, of advantage as a preparation for any walk in life, and not less so in law than in any other. And I know nothing to prevent the study of the classics in that sense, being a first-class training in reasoning. I think most will agree with me, that seldom, if ever, have there been found instances of more acute reasoning than, say, Parson's Letters to Travis on Three Heavenly Witnesses, or Bentley's

Epistles of Phœbus, not to mention Dawes' Miscellanea, or the Commentaries of Monk and Elmsley.

But it is in the study of the classics, not as a grammatical or philological exercise, but as literature displaying *man*, that their great value lies. The recesses of the human heart, the frailties of the mind of man, the humanity of man, are to be found there displayed, in my humble judgement, as nowhere else, Shakespeare, perhaps, alone excepted.

Whether Homer be a specific or a generic name, whether the same hand wrote the Iliad and the Odyssey, or if the same hand wrote the Hymns—all these are questions of little moment. Homer, the first great epic is the greatest, and the knowledge of human nature displayed in the Homeric writings may well justify a man of affairs, such as Gladstone, in reading these through and through again. !

And Hesiod, with his quaint wisdom and old-world saws, is still a man like men of the modern time.

And the Attic Tragedians! I care not whether, with Aristophanes, we look upon Euripides as an atheistical innovator, a subverter of all that was sound or good in Athens, religious or moral; or with Schlegel, as wanting in constructive art—*Purpureus late qui splendeat unus et alter Adseritur pannus*; or with Swinburne as a botcher; or with Jowett, as no true Greek; or with Verral, as the most perfect playwright the world has produced—with Browning he is to us

“Our Euripides the human,
With his droppings of warm tears,
And his touches of things common
Till they rose to touch the spheres.”

And while his “creed is the nascent philosophy and science and rationalism,” his eye pierces deep into the human heart, and there sees man as he is, and as he was, as he must continue to be while he continues to be man.

Aeschylus, the grand, the noble, the more than Miltonic Milton of the ancient world, given perhaps to the “*sesquipedalia verba*” desiderated by the Roman satirist, but with the eye, the voice of a prophet—a herald was he conveying to man a message from the eternal, an Athenian who proved himself a patriot, a hero in fight for his native land; his words were, and are, for universal hearing.

The sweet singer of Greece, Sophocles, with carefully measured

and trimmed verse, brought to the world an Oedipus Rex, whose majesty, and terror and power have never been excelled; an Antigone, whose beauty and tenderness are the more appreciated, the more minute and careful study is given to it.

Aristophanes, the Swift of Athens, without the bitterness of the Dean of St. Patrick's, who could paint in words what now requires the pencil of a Tenniel, or a Du Maurier, the uncompromising patriot who yet dared the fierce democracy when in "The Frogs" he pleaded for those who had been deprived of political rights for past political errors, who dared a Creon when Creon was at the height of his power, who writing a "Lysistrata" could also write "The Birds," *me judice* the most exquisite production of the genius of man. Of the sweet singers, the Lyric poets of Pindar and Theocritus, I do not stop to speak, but hasten on to the orators and historians. The balance of periods in the orations of Demosthenes cannot be even imitated successfully in English, so careful is he of every syllable, every particle; but his matter is on a par with his manner. His appeals to the reason, to the prejudices, to the patriotism, to the passions, has never been excelled. Much that he said, indeed, is much to be deplored: he used his great talents sometimes to the wrong end; but that his words and his arguments are most admirably adapted to the procurement of his ends, none may deny. The affected simplicity of Lysias, which had about it nothing of the simple, but much of the adroit; the warmth and sarcasm of Aeschines are but examples of the Athenian's persuasive eloquence. And the historians! Herodotus, the Homer of history, deeply impressed with the moral government of the world, and groping to find the workings of an over-ruling Providence, but joyous with the joyousness of the youth of the world, he wrote of a Hippocleides, a Periander, a Cypselus. A patriot, he told of Marathon, of Plataea, of Mycale, of Thermopylae, of the splendor of Pisistratus, the woes of the Ionic cities. An antiquarian and a scientist, his account of ancient Media and Persia, and Egypt and Lydia is as entertaining as a novel, and instructive withal. With him history was a delight and not a labor; and all the destructive criticism of a Macan can no more decrease, than the devotion of a Rawlinson, or a Blakesley, can increase, the charm of what he wrote. Of the later historians, of Polybius, of Plutarch, I do not speak—time forbids. One reads Mitford and Thirlwall and Grote, not, perhaps, so much to find out what were the facts in the history of Greece, but to see how the same facts strike the

different minds of these men of modern times. With one the democracy can do no wrong, with another democracy was the curse of the olden time. But when one is desirous of finding fact, detailed without partiality, he turns at once to the model of all scientific historians—Thucydides. Thucydides could write such descriptions as are contained in his Seventh book, that awful and terribly dramatic book, which I have read again and yet again, but ever with a thrill of horror. The complacent dilatoriness of Nicias, the hard-pushed Syracusans about to give up in despair, the arrival of the ship which had ventured in advance, the heartening of the despairing citizens, the arrogant demand that the conquering Athenians shall leave within five days, the alternating success, the gradual failure of the besieger, and strengthening of the besieged, Nicias' insistent cry for help to nonchalant Athens, the last great fight in the great harbor, the determination to retreat, the eclipse, the fatal superstition which delays the retreat till too late, the fatal disorganization of the greatest army the greatest city of Greece had so far sent out to war, the retreat, the horrible fight, or rather slaughter, on the river bed, the death of Nicias—too holy for this workaday world, the slavery and lingering torments of the survivors. All this great drama he could write, and yet he restrains himself to a cold calmness, he details facts of the most tremendous import and circumstances of revolting barbarity, in most cases without so much as a word of comment. Indeed, the only instance I recall of anything approaching reprobation is in the description of the capture of Mycælessus. Even such dastardly acts as the night invasion of Plataea by the Thebans, the butchery of some of these by the Plataeans, and the execution of the captured Plataeans by the Spartans are related in the second and third books as coolly as though they were the most ordinary and natural things in the world. The personal equation is wanting, if not entirely, at least practically, in Thucydides.

And the philosopher, the divine Plato, a man of extraordinary genius. His intuition gave him what the most extensive research in anthropology and sociology is but now making a matter of inductive knowledge. He was the creator of Socrates, rather than his interpreter. While he made Socrates and the opinions of Socrates common property, he brought more than Socrates before his readers; making him, as he thought, easily understood, he remains more of an enigma than ever. To me Plato's Dialogues resemble the shorter catechism of my youth. Purporting to be suited to "those of meaner capacity," the catechism is full of dogmatic theology, which the most mature can

hardly grasp. Men who have devoted their whole life to the study of Plato cannot be certain that they have comprehended him. For myself, I disclaim any pretension to understand fully any one of the dialogues. But what we can understand, how beautiful! the Silenus-like old man, how noble, how almost pathetically yearning over his Athens. One there was who said, "O, Jerusalem, Jerusalem, thou that killest the prophets and stonest them which are sent unto thee, how often would I have gathered thy children together, even as a hen gathereth her chickens under her wings, and ye would not." With reverence, be it said, as He spake, so Socrates felt; as Jerusalem, so Athens.

Xenophon comes rightly here, though he is, perhaps, best known by his warlike writings. For some reason which I have never been able to understand, lads at school have been given the "Anabasis" to read, and that part of it which is the most dreary, where *ἐντεῦθεν ἐξελαύνει* succeeds *ἐντεῦθεν ἐξελαύνει* with damnable iteration. If, indeed, the books dealing with the retreat, particularly the last with an account of the adventures in Thrace, were set, boys would, I think, enjoy them. But the "Memorabilia" contain just as good Greek and as easy, exhibit a humanity found nowhere else in Xenophon, and set out the grand personality of Socrates. But all that Xenophon ever wrote is worth reading.

Aristotle, the marvel of the ages, the scientist, the politician, the political economist, the political historian, the logician and scholar I can only name in passing, for I have been too long at but one small department of the Humanities, and but one part even of the classics.

But I must not pass wholly by the modern Lucian. He was not always sure of his *οὐ* and *μή*, his optative was too often forgotten, and the subjunctive would intrude. But, after all, he was but following the law of language. As we grow politer, we become unable to deny categorically; we deny only deprecatingly—we *μή* and do not *οὐ*. This is the advance of the *usus ethicus*, which prefers a mild form of indirect negation to the bolder *οὐ*. And if with the Hellenist the optative dwindled, and finally disappeared, atrophied for want of use, the same law appears in the English subjunctive, and the French past subjunctive. Lucian, at all events, certainly wrote Greek, and better Greek than that of the Septuagint; and his humor, his gentle pricking of the bubble of pretension, his carefully calculated exaggeration, show him the true fore-runner of the paragraphist of to-day.

“Baron Munchausen” stole bodily from the *Vera Historia*, and many of the most recent jokes are adumbrated in his sketches. No less did Lucian laugh away the hierarchy of Olympus than Cervantes the chivalry of Spain.

Of the Latin writers, I must speak very briefly.

Virgil is a more modern Homer; the godhead of Jupiter is not so assured as that of Zeus; Juno is less than Hera, and Diana than Artemis. The *spretac injuria formae* is that of a less goddess than was she who took up arms against the Trojans. Jupiter is not so secure in his seat that he may play like Zeus, and be wheedled by a suppliant, or be coaxed into “inextinguishable laughter.” He is a Roman, and not a Greek, and man has, in this instance, made a God in his own image.

Lucretius, the fore-runner of the Atomic philosopher, I cannot recommend to any one’s reading, even with the help of Munro, except to one who desires to understand the evolution of scientific ideas. But Cicero, vain, strenuous, a true patriot, even though he did, perhaps, protest too much, a lawyer to his finger tips, an advocate to the core, philosopher of the divine and the human, was an Admirable Crichton of the City of the Seven Hills, meeting, alas, an Admirable Crichton’s fate. In eloquence next only after Demosthenes, with, to my mind, a greater sense of what was just and right than the Athenian. His invective, his splendid rhetoric excels the efforts of all that followed him. We must come down to the time of Burke before we find a statesman and an orator with the same sense of public duty and the same devotion to the cause he had at heart; one who could crush opposition, if not by conviction, at least by the sheer weight of his wondrous eloquence. Nothing he wrote can safely be left aside, marred as it is, in the view of some, by the personal equation ever potent.

The glory of Roman literature, is, of course, Horace, the best beloved of all the ancients—one whom we all should like to meet at the club or at the dinner-table.

He is for all time; there was nothing to which he could not adapt himself, though he did make rather a mess of it as a military man. (Probably our modern volunteer colonels might not do better.)

He speaks as one of ourselves—and one infinitely more clever than any one of us. Marvellous is the satanic ingenuity with which he moulds the ponderous tongue of ancient Rome into lines of exquisite beauty—with which he brings the warlike Heracles of robust Latin to do the work of an Omphale of Alcæus. And he who wrote the Odes wrote also the Satires and the Epistles

(amongst them the *Ars Poetica*)—triumphs all of infinite skill, patient industry, keen vision and broad human sympathy. There are blots upon the sun, and it can scarcely be said that the eighth Epode can be recommended for promiscuous reading, but these blots are rare, and, for his age, he is wonderfully clean.

I do not know how others may feel, but to me the beauties of Virgil are not so much to be found in his *Aeneid* as in his lesser poems. No doubt the Epic, with its array of gods and goddesses and demi-gods, its capture of Troy and visit to Carthage, the visit to Hades and the later struggle in Italy, is a wonderful work of art; but the *Bucolies* and *Georgics* are to me a nestling in the heart of nature. Ovid, too, is many-sided, but to be read with greater caution. Catullus offers not much to be admired, and the minor poets are generally Ovid and water.

But what of Martial? Of whose epigrams few are wanting in wit, though generally the trail of the serpent can be seen upon them. The mighty Juvenal lashed the vices of his age with the whip of scorpions. I know of nothing in the whole range of literature which, for power, can compare with his immortal sixteen satires, and we may not omit one of them, not even the sixth, if we would know how the world is progressing.

Then Caesar, the warrior and statesman, perhaps the greatest man the world has ever produced, has left behind him his *Commentaries*, and Sallust his *Catiline* and *Jugurtha*.

Why the wars in Gaul are loaded, or unloaded, upon the youth of our country as the earliest Latin author, is another mystery to me. However, for those who can appreciate them, these are a lesson in determination, energy and valour.

But I must not continue on these lines further. And no doubt I seem to some to have forgotten my theme, and to have wandered from the subject. If so, it has been wilful. My object has been to show how in the works included in the curriculum of the Universities, is to be found the product of the most profound thinking, the most profound investigation into human nature by the poet and the philosopher in the abstract, by the historian and the orator in the concrete. Any one who has read thoughtfully such works as these, remembering that our nature remains the same, will be possessed of a knowledge that will stand him in good stead when he comes, as a lawyer must, to deal with men in the individual. The information, the knowledge as to facts gained, will be practically useless. No assistance can be derived by a Canadian lawyer from the most minute acquaintance with the

law and practice of Athens, which was the forum of Demosthenes; none from an accurate acquaintance with the practice of the courts in which Cicero was an advocate; and but little direct advantage, in this age at all events, from a knowledge of substantive Roman law.

I myself approached the study of English law by the pathway of Roman law, and may, therefore, be considered not in any way prejudiced against the Civil law; but I must say that I cannot find that any actual advantage has accrued in my practice of law from the somewhat extended course of Roman law I read before beginning the study of our own. It may be a matter of regret that the people of the world cannot get together and formulate a universal law as far as possible. If that ever happens, it will be found that the Roman law must form the basis of such a world code. For the magnificently symmetrical completeness of the Civil law of Rome is striking and worthy of all praise, and of the study of those who desire, as all lawyers should, to advance our own legal system. And man does not live by bread alone; a lawyer does not lose himself in the daily round of duties. He is a member of a liberal and learned profession. He is no *βάνανσος*, no *χειροτέχνης*. Money, of course, he desires, to make, and should make. I, for one, am tired of the nauseous twaddle that is so common concerning my profession, branding lawyers as mere money-makers, as men working for money. Of course, they work for money; all who do work work for money—the professor, the clergyman, the teacher will soon quit work if pay be not forthcoming. “The laborer is worthy of his hire.”

No fault can be found with the lawyer more than with another for making money, and making as much money as he honestly can. But after twenty-four years of practice, with an intimate acquaintance with many members of my profession and abundant means of judging, I assert that the members of the legal profession are as high-minded, as honorable and as disinterested as are those of any other profession in the world, not excepting the professor or the clerk in holy orders.

But the point I desire to make is this: the lawyer, like another, does not live by bread alone. The professional life, calling as it does, for the highest intellectual effort, keeps the mind bright; no moth nor rust can corrupt: that mind must be ever busy for good or for ill. The man who is saturated with the classics turns to them ever and ever for satisfaction for his mind, and blessed is he who in the leisure hour, the intermission from toil, may

find comfort and rest in the pages of an author of olden time. I have seen men in high standing at the bar, after the court had adjourned, and after they had fully prepared for the coming day, cast for fellowship upon the tavern loafer and forced, for want of something better, to listen to the vapid chatter of a bar-room habitu  . Who would not prefer Plato, even half understood, to the village Solon, or Euripides, to the town gossip? It may be said that such would not be bettered by a classical education, and that their failure to apply themselves to, say, modern English writings, shows that they would not, if they could, seek the companionship of the older authors. In some cases that may be so. But I venture to assert that few there are, who have received a thorough classical education, who will not, whenever and wherever duty will permit, return to the perusal of some of the favorites of former days. And with that I conclude. It may not enable a man to make more money, but a thorough acquaintance with the classics will give an intellectual pleasure, and will increase that which, to my mind, alone makes life worth living.

*THE BENEFITS OF CLASSICAL STUDIES FOR THE
PHYSICIAN.*

Part of a Symposium on "The Humanities and the Professions."

DR. J. T. FOTHERINGHAM, TORONTO.

Permit me first to congratulate myself upon the company in which again I find myself, you teachers whose ranks I left, at least whose particular branch of teaching I left, sixteen years ago, though still glad to consider myself one of you both in name and in fact. One's pleasure in his present position is not enhanced by the reflection that the ancient profession for which I have the honor to speak must be content for the time with so poor a spokesman and champion, when one's colleagues are men so well known in their own spheres as Mr. Justice Riddell and Reverend Professor McCurdy. As that most famous and lovable member of my profession, Sir Thos. Brown, said long ago in his "Religio Medici," "Every man is not a proper champion for truth nor fit to take up the gauntlet in the cause of verity. A man may be in as just possession of truth as of a city and yet be forced to surrender; it is, therefore, far better to enjoy her with peace than to hazard her on a battle." But here there are no battles, no ardent protagonists, no rival claims; rather a paean, a chorus with strophé and antistrophé, in praise of the benefits to be derived from the Greek and Latin classics by any of the learned professions. Comparisons of course are odious, and one would avoid belittling even by implication, if it were possible to avoid it, other courses of preparatory study. The advantages of the classics may be considered first in their *general*, and second in their *special* application to medicine. Speaking first generally, physician and layman alike should avail themselves when possible of the innocent and elevating pleasure which always accompanies the exercise of the literary faculty. The musician, the artist, the architect, the builder of great works, the organizer of great deeds on the part of the army, the navy, the nation, are here on common ground, and find in the exercise of their highest intellectual and æsthetic faculties the most subtle and highly

sensitized forms of pleasure. As F. W. H. Myers has said: "For myself, I am no fanatical advocate of a classical education, a form of training which must needs lose its old unique position, now that there is so much else to know. But for one small class of students such an education still seems to me essential, for those, namely, who desire to judge the highest poetry aright." The antidote *par excellence* to carking care, to the mordant tooth of daily professional anxiety, is the soothing balm and healing wine and oil of even ten minutes' communing with the sweetness of Theocritus or Catullus, the sprightly Bohemian worldly wisdom of Horace with his "*Qui fit, Maecenas?*" Or "the rise and long roll of the Hexameter," like the roll of "the wandering fields of barren foam" which Ulysses sailed in weary journeyings, or "the ringing plains of windy Troy," where Helen's beauty and frailty wrought woe to men and to armies and to nations, as so often before and since.

And apart from the satisfaction of slaking one's literary thirst at the fountain head of classics, I venture to express a doubt whether that thirst can be fully slaked by anyone drinking lower down the stream, as in Shakespeare, Milton, Tennyson, or Scott, or any other writer of one's native tongue. For felicity of phrase and synonym, dexterity of syntactical arrangement, and fine nuances of thought and sentiment, are very apt to be missed by those who have not been drilled in the comparative anatomy of language, with the *De Amicitia*, or the *De Corona*, or the Republic, or the Nicomachean Ethics, or the vivid terseness and condensation of Tacitus, or the silvery prolixity of Livy, as their text-books and models. As James Russell Lowell, himself a convincing example of the advantages of a classical training, classically and beautifully phrased it, in an oration on the two hundred and fiftieth anniversary of Harvard, "The garnerers of Sicily are empty now, but the bees from all climes still fetch honey from the tiny garden plot of Theocritus. On a map of the world you may cover Judea with your thumb, Athens with your finger-tip, and neither of them figures in the Prices-Current, but they still lord it in the thought and action of every civilized man."

Speaking now of the more special need which the trained physician has of the Classics, one would refer first to their value as mental gymnastics, secondly to their indispensability in the matter of scientific nomenclature and classification, thirdly to their

influence not on mental habits alone but on character and disposition, particularly in the development of a wise and judicious conservatism and of a kindly Bohemianism, a willingness to be, as the diplomat and the physician must alike be, "all things to all men."

First, then, as to the value of the classics as mental gymnastics. I assume that it is the boy and not the young man who is to go through this gymnastic course, in which the various intellectual powers find fitting exercise, and in the order of their embryonic development, memory, reflection, the hardening of the will into habits of industry application, accuracy, *verbatim* and *literatim*, being all duly cultivated, and cultivated in proper developmental order. I cannot refrain, gentlemen, from the expression here, as a digression, of my positive opinion—born some may say of the conservatism which unwisely asks, "What is the cause that the former days were better than these?"—that some modern educationists are in error in their search for a Royal Road to learning, and are spending in this search an energy which would carry them more directly to the goal if they faced and accepted difficulty in the good old direct way. They seem also with all their pedagogical improvements and child study to have ended up, if one can judge from what he sees of school-children nowadays, in a very serious neglect of the primordial order of development of the faculties of the human mind. The attempt is constantly being made to convert into a thinking machine by means of mathematics that which should be not a conceiving but a perceiving and registering and memorizing machine. So that at the age when subjects and books should be few, and memory should be in process of cultivation, with models of literary excellence studied and stowed away for future imitation and enjoyment, and the perceptive faculties duly awakened, the attempt is made to make the child the father of the man without due periods of puberty and adolescence, a system which is at least in large part to blame for the shallow superficial Philistinism and pseudo-culture of the present day. The teaching profession is not wholly to blame for this state of affairs. The printing press must bear its share. About 1630 Sir Thos. Brown wrote thus: "It is not a melancholy wish of my own, but the Desires of better heads, that there were a general Synod: not to unite the incompatible Difference of Religion, but for the benefit of Learning, to recover

it as it lay at first, in a few and solid Authors; and to condemn to the Fire those swarms and millions of Rhapsodies begotten only to distract and abuse the weaker Judgments of Scholars, and to *maintain the Trade and Mystery of Typographers.*" What could the dear philosopher and physician say nowadays of the *fliegende blätter* of the press, which blow into our houses on every passing breeze from Sunday-school library and newstand alike, in at one ear, out at the other, skimmed over, not read but glanced through wrong end first; leaving superficiality, inaccuracy, philistinism in their wake, if nothing worse. May I venture to beg your profession to come fully to the consciousness that you are our bulwark against this tide, and should help powerfully in the creation of a proper public opinion in the matter? The boy who can be shown the depth and purity and condensation of literary interest and style to be found in the Greek and Latin writings, can be fully trusted not to wander far if once he can be carried past the drudgery of the early years, and it should be clearly understood that this drudgery is not only a means but an end; a means whereby the later pleasant fruition of scholarship and literary pleasure and polish may be attained; but an end, as indicated in my first sub-head, as gymnastics for the mind. One need not try to go again over ground so familiar to us all.

As to my second sub-head, the necessity of the classics as a source of nomenclature in all branches of scientific study, one need not enlarge here. Without an enormous medical dictionary as his life-preserver the medical student of to-day is floundering and wallowing in a sea of terminology, mostly to be got up *vi et armis* by the belated and laborious exercise of that faculty of memory which he should have had trained with much greater facility at a much earlier date on the roots which he now fails to recognize in their new combination, which therefore have no pictorial value to him. One example will suffice. The sperm whale, of course, "blows" when he comes up to breathe. His huge head constitutes nearly one-third of his enormous bulk. Hence to the well-trained naturalist who first named him, he was *Physeter Macrocephalus*. What possible significance can the name have to the student who was permitted carefully to exclude Latin, and Greek so many times the more, in selecting his optional preparatory course? He cannot even see the point when for mnemonic reasons it is translated for him "Big-headed Blow-

hard." But besides this, he probably lacks the mental punctilio, which admittedly if carried too far becomes pedantry, but which always characterizes the finished product in educational matters, and which all must admit is not the usual result of a bare training in the sciences.

My third sub-head had reference to the influence of the classics not on mental habits but on character and disposition, as required of the physician by his patients. The two outstanding traits in my judgment, to fit the physician for his duty towards the multifarious types of humanity whom he must study and conciliate, are conservatism of opinion and tempered Bohemianism of disposition.

As to the first of these, one may remind you that the famous lexicographer once said to Boswell, "In my opinion, sir, every sick man is a villain!" By this he doubtless meant that as self-preservation is the first law of Nature, the sick one and his friends in their fear of death drop from them any acquired veneer of manner or restraint, and appear naked as they are, the courageous, good and thoughtful patient remaining so to the last, and those who are only outwardly in possession of these traits being deserted by them when the pinch of fear comes. Be that as it may, no sick one desires to be experimented on with drugs or other measures untried before, and no careful physician will venture to use on his own cases new and untried remedies, however willing he may be to accept results with new remedies well accredited by laboratory experiments or in other men's practice. Josh Billings, you know, once announced that he had discovered the best place for a boil, viz., on some other fellow.

This is part of the wholesome conservatism which, while it has probably at times delayed advance in the healing art, and even led to such sad examples of the *Odium Medicum* as that which attached to pioneers like Harvey, with the Circulation of the Blood, and Jenner with Vaccination, has undoubtedly been for the good of the sick in all ages. This type of mind is, I believe, most effectively induced by classical study, with its prevailing influence towards what is old and good and beautiful. This was the reason which induced the Czar of Russia to order a few years ago a great extension of the study of classics in the universities of the Empire. He thought, mistakenly, if one may judge by

subsequent events, that men trained thus would be less radical and reforming in their notions. The probability is that a second and smaller Renaissance has gone on in Russia as a result, as it did in its time in all the other parts of Europe, and that the conserving and unradical influence of classical study can remain unimpeached. I venture, too, to say that in my judgment there is not a mere coincidence, but a direct causal connection, between the advent of modern scientific medicine with its laboratory and test-tube methods, "made in Germany" largely, and popular therapeutic aberrations, such as Christian Science and the "irregular" methods of treatment. The people love a thaumaturgist, they will have a "priest-physician," it is a primordial need, for soundness of soul and mind depends so largely upon soundness of body, and vice-versa, and the need of moral support is often even more keenly felt by the sick than that of physical healing. The older type of physician with the conservatism and kindness born of a less purely scientific training, possibly met this need of the people more fully than the newer type whose training, at any rate till mellowed by contact with the sick, leads him perhaps at times to treat the disease rather than the patient.

How very conservative the profession is to which I belong a single example will suffice to show. The cross on the tail of the capital R which heads each prescription we write is a survival of the capital D from *Dia*, the vocative case of *Zeus*, and is really the prayer with which the Greek priest-physician invoked the aid of *Jupiter* and his blessing on the means employed. You will recollect the use made of this by *Charles Reade* in his "*Very Hard Cash*," in which the heroine, being in love, is brought up to London by her mother, who has not guessed her real ailment, to see the physicians, and they all with one consent cry, "Oh, *Jupiter*, aid us! *Blue Pill* and *Black Draught*."

Finally, as to the Bohemianism to which I have referred. The term is perhaps too strong. I mean at least that it be well controlled, usually latent, available only on occasion when some scarred or blunted nature can be tempted into confidence only by a bait whose colors are familiar to him. This quality of mind must be well tempered by that dash of Puritanism and strength without which the Bohemian may condescend to deeper than human depths. Where can one better learn this kind of worldly

wisdom, this discriminating sympathetic knowledge of human nature, than from the literature of Greece and Rome? For instance, "*De gustibus non est disputandum*," or, as Abraham Lincoln put it, "Well, for people that like that sort of thing, that must be the sort of thing they like." How many times I have thought of this when, after my best efforts at concealing an unpalatable dose let us say by peppermint, I have been met next morning by the cry, "O Doctor, what a horrid medicine you left me! Why *did* you put peppermint in it?" This disposition to give and take, so necessary to all who would maintain confidential relations with the public does not commonly reside in the mere Puritan.

I well remember President Hutton, of the University here, telling us in one of the Saturday lectures that the best possible historical study for the politician of to-day is that of the Greek republics, the springs and motives of human action remaining unchanged throughout the centuries, and evolution in her course leaving human nature, like the rocks, much as she finds it. If Pope's line be true that "the proper study of mankind is man," where can one better go than to the humane and human Greek to study him? Sophocles makes his chorus sing, "Many marvels are there, but nothing more marvellous than man himself." The very anthropomorphism of the Greek mythology and religion fosters the graceful Bohemianism which I have in mind.

It would seem odd to conclude my remarks without an allusion to classical medicine. The debt which the medicine of to-day owes to the ancient Greek seems to grow less as our knowledge widens of Nature and her processes and laws, and as the purely scientific crowds out the clinical and the empiric in the Healing Art. But for the first fifteen centuries of our era all that the world knew of value in medicine was Greek, buried and lost to Christendom in the blight of the Dark Ages till brought again to light in the Arabian translations, which were for centuries the text-books for instance in the great and prosperous University of Baghdad, and others of the Far East. Here, in the 8th and 9th centuries particularly, the light was kept burning for hundreds of students which had been kindled centuries before Christ on the altars of Apollo and Aesclepias. And of all the long line of Aesclepiadae from that day to this no name shines brighter.

ancient or modern, than that of Hippocrates, the model physician, the Father of Medicine, Ancient and Modern, with his matchless aphorisms, and his oath of professional fealty and obligation, still a model of all that is high-minded and self-obliterating in him whose life work is the caring for his sick and miserable fellows. It would almost seem that no physician could reach his best development who has not at some time come under the spell of the people and the art and the literature that bred Hippocrates, and who cannot with these as part of his experience say of himself, as Tennyson makes Ulysses say: "I am a part of all that I have met."

MATHEMATICAL AND PHYSICAL SECTION.

THE POETRY OF MATHEMATICS.

There are two kinds of mathematicians, and they have two ways of studying mathematics. The one regards all mathematical ideas as abstractions and the chief end to be attained the study of its symbolic language. The student of mere symbolic becomes a calculating machine, incapable of sympathy with the thoughts and passions of ordinary men. He passes among them as a profound thinker. In reality he is dwelling near the borderland of insanity. The other regards all mathematical ideas as inseparable from the world of nature, and its language as an unerring guide which conducts him into new mysteries, and show him beauties and harmonies he never dreamed of before. He becomes an artist, is in complete accord with the world around him and passes among ordinary men as wise. It is to the latter class that I address myself.

This is a world of beauty. Ever since our eyes opened on its wonders we have been beholding, comparing, contrasting and grouping, often unconsciously, the natural things about us. The sky with its variegated hues, the restless sea, the solid mountains, the hazy valleys and the sunny plains, the verdant wood with its song of birds, the murmuring stream, the sighing winds or the majestic grandeur of a storm,—all these are continually calling forth in us the latent sense of beauty. Sooner or later we form some sort of an ideal or standard with which we compare all forms of beauty. If now on comparing some new object with this ideal, we feel a sense of harmony our artistic pleasure is great and if, in addition, this ideal is enlarged and intensified our pleasure is increased. But if on the other hand the object is not in harmony with, or degrades, our ideal, we turn away from it with a keen sense of pain. This is the source, I believe, of artistic pleasure or pain.

In this ideal different forms of beauty may predominate. In ancient Greece it consisted largely of beauty of form, as evidenced in its sculpture and architecture. Their most beautiful

columns have their curves borrowed from the hyperbola and their colonnades obey a simple arithmetical law. Later in history the elements of color and sound entered into this ideal, and to-day they hold almost absolute sway. The one expresses itself in painting, and the other in music. Yet the most elaborate and realistic painting would cause a sense of pain if the simple laws of mathematical perspective were violated, and the grandest strains of Mendelssohn or Mozart would crash in horrible discord were the mathematical laws of time and interval for an instant broken. But the poet's ideal incorporates all three elements of beauty. In his imagination are all beautiful forms, all sweet sounds, all harmonious colors. When the reader finds that these harmonize with and intensify his own ideals of beauty, being captivated in addition by the very form and melody of the words themselves, he enters into the spirit of the poet, feels his rapture and enjoys him to the full. For example, observe how Coleridge, in "The Ancient Mariner," appeals to all that is beautiful in our ideals and intensifies them by his own vision when he says:

Sweet sounds rose slowly through their mouths
And from their bodies passed.

Around, around, flew each sweet sound,
Slowly the sounds came back again
Now mixed, now one by one.
Then darted to the sun;

Sometimes dropping from the sky
I heard the skylark sing;
Sometimes all little birds that are,
How they seemed to fill the sea and air
With their sweet jargoning!

And now 'twas like all instruments,
Now 'twas a lovely flute;
And now it is an angel's song,
That makes the heavens mute.

It ceased! yet still the sails made on
A pleasant noise till noon,
A noise like that of a hidden brook
In the leafy month of June,
That to the sleeping woods all night
Singeth a quiet tune.

But this implies on the part of the reader two things: First, the power to conceive an image in the mind, to hold it in view, to change or dismiss it at will; and secondly, the possession of a

standard or ideal of beauty with the faculty of artistic judgment.

The purpose of this paper is to show that of all the educated men the mathematician is qualified in an eminent degree to enjoy true poetry and to distinguish it from that which is false, that he cannot read lines that strike the least note of discord nor look upon an image whose setting and form lack the elements of true harmony.

Long, long ago among the classic hills of Greece there lived a strong and sturdy youth. His limbs were of such symmetrical mould that no one in all the world could match him in feats of strength or in the graceful movements of the body. His brow was of marble whiteness. His eyes were clear, and in them could be seen the light of a lofty purpose. The rest of his features were in keeping. He dwelt chiefly at Athens and Corinth, but frequently paid visits to his relatives in Alexandria and his friends in other parts of the world. His delight was to consult and advise the workmen on the Pentelicus as they fashioned the stones for the temples and capitolis which are the wonder of the succeeding ages. His attainments were great, yet he was ever restless, seeking after something or some one, he knew not what, feeling "cabinéd, cribbéd, confinéd," always striving after great things, accomplishing much, yet never reaching the full fruition of his powers.

All unknown to this youth, among the gentle slopes and sunlit hills of Spain, a maiden was being reared with tender care. Day after day she played in the courts of those magnificent palaces reared by the worshippers of Mahomet as dwelling-places for their princes. She was not strikingly beautiful. She had many friends but few lovers. Oftentimes she sighed for some one worthy of her love on whom she could rely. Years passed on, and this youth and maiden lived and longed, each unconscious of the existence of the other.

At length fell disaster overtook the maiden's parents and her people. Their lands were invaded, their palaces sacked, and the maiden was forced to flee from her parental home and find a refuge in the cloisters of the Monastery. Thus it was that this noble Grecian youth, ever restless, himself driven from his native land, in his wanderings happened to meet the maiden. They felt strangely drawn to each other. The eyes of the youth glowed with a new light and the face of the maiden shone with

a new radiance. Thus their courtship began. Many an evening they spent together, within the ivied walls of the monastery, as they talked to each other of their former lives. Strange place indeed for a courtship. The bans could not be published. They fled to Holland. There they were married. René Descartes performed the ceremony; and Geometry, the Grecian youth, and Algebra, the Moorish maiden, were forever united. At once the youth became a man of wonderful power and the maiden developed a singular beauty. Thenceforth, happy in each other's love, they made their abode in the University of Europe, taking a perpetual pride in their offspring. From this union new families—nay, whole nations of families—were born into the mathematical world. Myriads of beautiful forms, most of them unlike anything seen by the natural eye, strange forms, yet all of them perfect, harmonious and true. Not a single one is out of keeping with the ideal of beauty. Not a blemish, not a discord, not an imperfection. The mathematical world is peopled full of these strangely beautiful forms, now fixed as the eternal hills, now changing, growing from one form to another, mingling together, in endless variety, yet always there is regularity, perfection and beauty.

The contemplation of these strangely beautiful creatures of the imagination, which none but the mathematician can see, gives him a peculiar advantage over other men in forming a true ideal of beauty of form. Their very strangeness enlarges the scope of his imagination so that he may create other worlds as beautiful as that in which we live. Moreover, the clearness with which one may conceive a definite form, hold it in the mind and contemplate its beauty, comes from a close application to the study of geometry and is, in a great degree, the measure of the reader's ability to enjoy the great imaginative poems. The door leading from the mathematician's gallery of beautiful forms into that of the poet's imagery is always open.

I said that from the union of these two lovers there sprang a generation of beautiful children. Here is one of them:

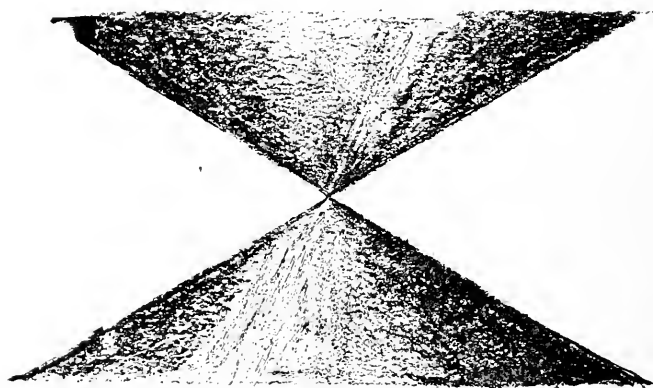
$$X = 0.$$

It was my good fortune to spend my early days on the elevated banks of Lake Erie. A few times on a summer evening you may, perhaps, have looked out on the water, as I have—not the slight-

est motion of the air, not a ripple on the pebbly beach, not the slightest undulation on the mirrored surface, which reflected the rays of the setting sun in a path of golden glory which seemed to carry our thoughts, nay, even our spirits, into another world as we stood entranced. But the surface dips, the earth is round, and our view is cut off. But suppose the surface did not dip, and the ancients were right in their view that the earth is flat and the mirrored plane extends in one unbroken infinite level, in front, on either side, behind, forever. What if the Almighty had constructed the universe on this plan—all below dark and impenetrable—all above light and airy? Such a picture is called up in the mathematician's mind by the simple statement, $X=0$. Here is another of their children:

$$x^2 + y^2 = kz^2.$$

The mathematical cone. A straight steel wire, of infinite length, piercing a hole in the infinite plane, is made to slide rapidly about a circular ring held above and parallel with the plane.



Look at the shape described. Above the plane a huge inverted mountain, perfect and beautiful in form, its point in the region where mortals live, its everwidening sides reaching beyond the faintest twinkling star. Its base cannot be conceived. Look at its counterpart below. Suppose the Creator had constructed the universe on this plan. The mighty cones, dark and solid earth; th outside, light and airy. What thoughts teem upon the

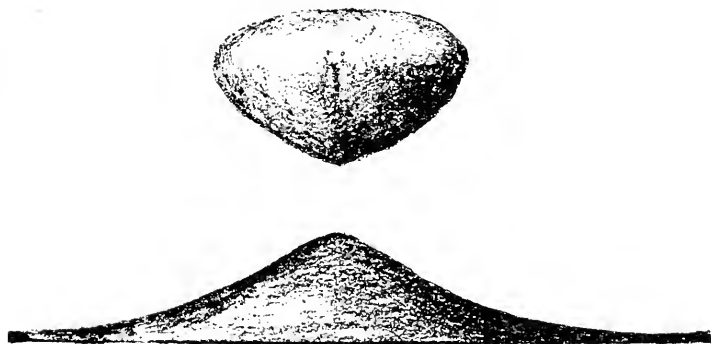
imagination when we contemplate the possibility and the sublimity of such a universe? What people dwell there? What are their joys and occupations? What geographical and astronomical discoveries have they made? What Newton has formulated a new law of attraction? What Shakespeare has touched the chords of the human passion? What Dante has imagined a still unseen world? I will leave the wide field to others.

Referring to the equation, $x^2 + y^2 = kz^2$, by varying k we can see the angle of the cone increase until the mighty slopes of its apposing parts approach each other, and clash in dire calamity.

Here I might suggest that when the imagination is controlled by definite laws the mind feels a peculiar pleasure in tracing out the delineations of its images and gains vigor in doing so. In fact these imaginary forms may become more real than the actual forms in the world. Without these controlling laws the images become hallucinations and the mental powers are dissipated.

Again let us contemplate the beauty and the grandeur of the form called up by the equation,

$$x^2 + y^2 = n(z-a)(z-b)(z-c).$$



Its lower part consists of a huge mountain with endless gentle slopes, reaching forever outwards to join the infinite circle of the universe, its rounded top being situated in the region where mortals live. But what is that strange massive form that hovers over the top of the mountain, vertex answering to vertex, swelling sides and flattened top? Strange and beautiful! The inexorable laws of mathematics will have it so. What if the Creator had constructed the universe after this plan and mortals living

there had solved the riddle of its existence as we think we have that of our own, and had ceased to wonder at its strangeness? In the language of an ancient writer I am led to say, "Such thoughts are too wonderful for me."

Now, let n increase and watch the swelling sides grow wider, while the mountain slopes become more gentle. Next, let a grow into b , and watch the huge upper form vanish to a point, the sides of the mountain answering in graceful change. Next, let b grow into c , and watch the apposing vertices approach each other, pouting their lips as they clasp their arms in one rapturous embrace.

The number and variety of these forms are only equalled by the number of equations involving x , y and z which may be formed. Yet, perhaps, I have brought before your minds sufficient to show that no branch of study furnishes so wide a field for the exercise of the imagination as that of mathematics. It develops first, strength to conceive an image, and secondly, a taste for the beautiful in form. These two things constitute the essential conditions for the enjoyment of poetry. There are three elements of beauty, sound, color and form. These three, but the greatest of these is form.

Probably no writer appeals to the idea of form more than the poet Dante. He lived in an age when men thought the world was flat, surrounded on all sides by an endless river. The habitable part of the flat world was the centre, about which concentric heavenly spheres revolved within each other, the one containing the moon, another the sun, others the planets, and still another, the fixed stars. There was another side to the flat world, but no mortal had ever seen it. Impious indeed would he be who should attempt to cross the endless stream and reach the unknown shores. Beneath the flat surface of the habitable world, in one mighty inverted cone, within whose nine circles, ever narrowing down to the vertex, dwelt the lost spirits in the regions of eternal woe. We follow the poet and his guide in their perilous journey past the centre of the universe, where, having re-adjusted their equilibrium, they ascend by a new and unknown way and reach the regions of the opposite hemisphere, and again behold the stars. I think the mathematician who has conceived the lower mountain form, which I have previously

brought to your mind, will appreciate the vision that breaks upon their view when Dante says:

“The dawn has chased the matin hour of prime,
Which fled before it, till, from afar,
I spied the trembling of the ocean’s stream.”

It is not my purpose to accompany the travellers in the unseen world as they climb the Mountain of Purgatory, but to point out that this mountain, easy of access towards the top, reaches to the entrance of Paradise. Unlike the Celestial City in the Apocalypse, “which lieth four square and the length and the breadth and the height of it are equal,” Dante’s Paradise is an inverted cone whose apex begins at the top of the Mount and whose sides as they ascend divide the concentric spheres of the moon, the sun, the planets and the stars into regions where the immortal spirits of the dead, refined and purified on the Mountain of Purgatory, spend an endless existence in joys increasing as they ascend.

Sometimes the true appreciation of a poem depends not only on the clearness but on the rapidity with which the reader must conceive the successive images. The necessary flexibility of the mind is greatly increased by studying the changing geometrical forms represented by equations containing variable and vanishing parameters. It is no trouble for the mathematician to leave the solid earth and identify himself with Shelley’s cloud, and revel with delight among the images he sees.

Finally, the cultivation of the imagination or image-forming power of the mind is of great importance. It enables the teacher, the lecturer, and the public speaker to set his theme in a clear light. It lifts the mind out of the commonplace, and translates it into a new world. It strengthens one’s faith in the reality of things not seen. It enriches the memory by many beautiful forms. It broadens our sympathy and helps us to see things as others see them. We need to cultivate this image-forming power, because in this extremely practical and even sceptical age we are apt to think that nothing is true unless it can be subjected to the “laboratory test,” and brought into the range of our physical senses. We need to cultivate it because it lifts the mind out of its narrow self, and gives it a taste for that which is beautiful, and enables it to enter fully into that inheritance bequeathed

us by the great and good men of the past—an inheritance not secured by title deeds, but free to all who will pay the price. I wish before closing to show you another form or picture which may not be reduced to an equation, but which I have carried in my imaginary world for a number of years. It is a small possession of mine in the North of England, though I have not an exclusive right to its enjoyment. Originally, it belonged to William Wordsworth:

I wandered lonely as a cloud
That floats on high o'er vales and hills,
When all at once I saw a crowd,
A host of golden daffodils,
Beside the lake, beneath the trees,
Fluttering and dancing in the breeze.

Continuous as the stars that shine
And twinkle on the milky way,
They stretch'd in never-ending line
Along the margin of a bay:
Ten thousand saw I at a glance
Tossing their heads in sprightly dance.

The waves beside them danced, but they
Outdid the sparkling waves in glee:—
A Poet could not but be gay
In such a jocund company!
I gazed—and—gazed—but little thought
What wealth the show to me had brought;

For oft, when on my couch I lie
In vacant or in pensive mood,
They flash upon that inward eye
Which is the bliss of solitude;
And then my heart with pleasure fills,
And dances with the daffodils.

"You have many beautiful things, and I have many beautiful things, but your beautiful things are not the same as my beautiful things," said a child to me.

"Indeed! and what are your beautiful things?"

"I do not like to tell you. If I tell you you will say pooh!"

On my assuring her that I would not, she replied, "My beautiful things are—babies and angels."

And I have kept my promise.

INTEGERS—FINITE AND INFINITE.

The subject announced as the theme of this paper was selected under a conviction of the supreme importance of clear-cut, well-wrought-out definitions of the foundation concepts in all our mathematical thinking. How often in a heated discussion upon some social, political or religious topic is it clear to an intelligent bystander that an adequate definition of the terms used would remove all ground of debate. In the same way, many of our difficulties and problems as teachers and students of mathematical lore would be solved, or greatly lightened, by a better understanding of the fundamental ideas.

Good definitional statements of the postulates of arithmetic, geometry, and other mathematical subjects have received considerable attention of late. This has resulted in the revolution in the methods of analysis, of which Weierstrass is the hero, in the discovery of the new and wonderful continents of hypergeometry which immortalize the names of Bolyai and Lobatchewsky, and the creation and fruitful cultivation of symbolic logic, in which field Boole, Pierce and Peano were pioneers.

But the wonderful results of the gigantic labors of these talented explorers have hardly yet begun to find their way into the work-a-day world of mathematics in which our lot is cast. We seem to be content to dig and reap in the ancient fields inherited from a long line of illustrious ancestors, making use of the spade and the cradle of bygone days. There is great need of someone to mediate between those who live in the clearer sky of advanced truth and us who are toiling day by day in the simpler walks of the intellectual world. It shall be the purpose of this paper to strive to reach up into that higher arena, and lay hold on some suggestions that may be of help to us.

Unfortunately we do not have to go far afield to find large tasks awaiting us. Let me suggest a few questions that may indicate important concepts some of us conceive but loosely. What answer would you give to a bright boy who refuses to believe that .9 is exactly equal to one? You explain quite readily how to multiply by fractions, by negative numbers, by surds, etc., but just what is the *significance* of such multiplication? Suppose a student refuses to believe that there is any number whose square is two. Of course, he sees that the square of 1.414 is *nearly* equal to two, and that the square of 1.41421356 is still

nearer to two, and that by continuing we can get a number whose square is as nearly equal to two as anyone may require, but he insists that there is no number whose square is *exactly* two. How would you define the number $\sqrt{2}$? And what *do* we mean by the square root of minus one? The rules for handling this new quantity are quite simple, but show us the quantity so that we can see it. Does it stand for any actual thing, or has it only a fictitious existence?

Some of these questions have been well answered by Professor Henry B. Fine of Princeton, in his new College Algebra. He starts out with a brief discussion of the cardinal numbers, one, two, three, four, etc., shows how these are arranged by their inequality relations in the ordinal scale, first, second, third, etc., and upon the basis of these ideas builds up logical definitions of the other kinds of numbers which are commonly used in Algebra, and of the ordinary operations upon them.

I propose to discuss the fundamental problem concerning the significance of the ordinal and cardinal numbers, and to present some extensions of these concepts. The extensions are of value not only for their own intrinsic worth, and on account of important applications which may be made of them, but also in that they serve to illuminate the more primary notions from which they spring. The process employed is that common to all lines of thought. We begin with the crude abstraction already sufficiently understood for the simpler affairs of life, and seek to delimitate as clearly as possible its precise denotation and connotation. Having thus defined it in as accurate and broad a sense as we can, we seek to enrich it by an extension of the concept so as to include in the concrete realm of its application new and wider spheres of usefulness. For example, multiplication is originally defined for the realm of positive integers as a new operation equivalent to repeated addition. By a new phrasing of this definition not affecting its significance within this realm the conception is extended so as to admit in turn fractions, negative numbers, irrational numbers, complex numbers, and even things which are not numbers at all, such as mathematical operations, logical relations, classes of objects, etc.

We are all familiar with the ordinary cardinals. We have no hesitancy in comprehending the significance of the word "seven" in such a statement as "There are seven books upon the table,"

nor when put in the more abstract form “The number of books upon the table is seven.” The *formulation* of a good *definition* of this significance is not so easy a task.

Perhaps we may well start with Fine’s statement. He gives four definitions of cardinal numbers of which I will quote three. The number of things in a group or its cardinal number is, (a) That property of the group which is independent of the character of the things themselves or of their arrangement within the group; (b) that property of a group which remains unchanged if we rearrange the things within the group or replace them one by one by other things, or (c) that property which is common to the group itself, and every group which may be brought into one to one correspondence with it. This last he puts in italics as the formal definition he propounds.

Permit me to point out the four concepts used in this statement. The first is that of a group of things. The word things is used in the broadest sense to include any object of thought. These things are not considered individually, but as members of a group, which group, as a whole, is the subject of predication. For example we may consider the group consisting of the days of the week; the group consisting of the letters of the word “Varsity”; the group of divisors of 64, the group of colors known as the primary colors, the group composed of the words or symbols “one, two, three, four, five, six, seven.” We instinctively arrange any set of objects presented to our thought in an order of sequence, but the order or arrangement of its members is not a constituent element of the idea of a group.

In the second place, we have the conception of a one to one correspondence set up between two groups—a matching or pairing off by some well defined scheme of the members of the groups. In a class room full of students it may be directly evident that the group of students and the group of chairs are capable of being set in one to one correspondence, one chair to each student and one student to each chair. The process of counting is the setting up of such a correspondence of the group of objects being counted, and a certain group of fingers—counting on the fingers—or with a certain universally recognized group of words, “one two, three, four, five, six, seven.”

In the third place the author requires us to take into our consideration all the groups capable of being set in one to one cor-

respondence with the given group; for instance all those mentioned above and an infinitude of others similar to these.

Then finally we are required to abstract from this *class* of groups the common property upon the basis of which they are classed together, and this property common to all the groups is called the number of each group.

Bertrand Russell has pointed out* that this definition by abstraction, which was advanced by Peano† the great founder and master of the Italian school of formal logic, is open to certain logical objections, the chief of which perhaps is that the existence of a single unique common property is not established. He suggests a modification which it seems to me has the advantage of greater clearness as well as a greater logical value. It is *that the class of all groups similar to a given group be what is denoted by the number of the group*. Thus all groups of objects are to be thought of as classified into classes of groups, in that two groups belong to the same class if they are capable of being set in one to one correspondence with each other. These *classes themselves* are the cardinal numbers. To say that there are seven days in the week or the number of days in the week is seven is to say that the week considered as a group of days belongs to that class of groups which we call seven.

One or two applications of this definition may serve not only to illustrate its meaning, but to exhibit its superiority. The cardinals are distinguished by the relationship of greater than and less than. The statement that seven is greater than five signifies that no group of the class seven can be matched against the whole or a part of any group of the class five, whereas any group of the class five can be matched with a part of any group of the class seven. To say that three plus four is equal to seven means that the classes three, four and seven are so related that if any group of the class three, and any group of the class four are taken together, in the logical sense, the resulting aggregate or group, considered as a single group, belongs to the class seven. The classes are recognized by certain typical groups. For instance a certain combination of fingers, a certain group of dots or strokes, or a certain known combination of words as "one, two, three, four, five, six, seven."

*Cf. Bertrand Russell, *The Principles of Mathematics*, Vol. 1, p. 114.

†Cf. Peano, *Formulaire de Mathématiques*, Turin, 1901, § 32, ·0, Note.

So much for the definition of cardinal numbers. A legitimate and fruitful extension of the ordinary set of cardinals may be obtained by admitting into our consideration infinite groups of things.

First, we must ask what is meant by the term "infinite" as applied to a group of objects. We say that there are an infinite number of points in a line or an infinite number of lines passing through a given point. What is the precise significance of the phrase "infinite number." It is evidently one of wide application. The answer that arises at once to our minds is that a group is infinite in number if it cannot be counted, that is, in terms of our definition and our practice with finite groups, if it is impossible to set it in one to one correspondence with one of our typical groups of words. But this is open to many objections. How would you apply this criterion to test whether a group is infinite or not? Take, for instance, the following groups: All the atoms contained in the solar system, the totality of proper fractions, the total set of light waves given out by the sun in a thousand years, the group consisting of all lines passing through a given point. Clearly such a negative definition of the term infinite is, to say the least, quite inadequate.

The following simple test serves to characterize the groups we desire to designate infinite. *Any group is infinite if it can be set in one to one correspondence with a part of itself.* For example, the totality of finite integers is an infinite group, since by matching each integer with its double we set the whole group in one to one correspondence with the group of even integers, a part of the other group. This matching may be indicated by writing the two groups thus:

$$\begin{array}{l} 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 \dots \\ 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32 \dots \end{array}$$

Or by matching each number with the next integer we set the whole group one included in correspondence with the group consisting of all the integers except one:

$$\begin{array}{l} 1, 2, 3, 4, 5, 6 \dots \dots \dots \\ 2, 3, 4, 5, 6, 7 \dots \dots \dots \end{array}$$

Again, the number of points upon a straight line AB is infinite because each point P being matched with the mid point of AP ,

the points of the whole line are set in one to one correspondence with the points of a part of the line, viz., those lying between A and the middle point of AB .

The apparent anomaly of a part being equal in number to the whole is exactly the distinguishing mark of an infinite group.

Admitting into our consideration infinite groups of objects, the question that confronts us at the outset is, whether there is but one infinite cardinal number, whether all such groups do not constitute one single class. The following simple scheme of arrangement easily shows that the group of all finite integers and the group of all proper fractions can be set in one to one correspondence, *i.e.*, have the same number of members:

$$\begin{array}{cccccccccccccccc} \frac{1}{2}, \frac{1}{3}, \frac{2}{3}, \frac{1}{4}, \frac{3}{4}, \frac{1}{5}, \frac{2}{5}, \frac{3}{5}, \frac{4}{5}, \frac{1}{6}, \frac{5}{6}, \frac{1}{7}, \frac{2}{7}, \frac{3}{7} \dots\dots \\ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 \dots\dots \end{array}$$

Likewise the number of rational numbers is the same as the number of integers as is shown by the following scheme:

$$\begin{array}{cccccccccccccccc} 1, \frac{1}{2}, 2, \frac{1}{3}, 3, \frac{2}{3}, \frac{3}{2}, 4, \frac{3}{4}, \frac{4}{3}, \frac{1}{5}, 5, \frac{2}{5}, \frac{5}{2} \dots\dots \\ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 \dots\dots \end{array}$$

Moreover, there are just as many points upon any terminating line as upon any unending line, as the following construction proves:

Let AB , the terminating line, be placed so as to intersect the unending line in a point C within AB . Take P and Q any points one on each of two lines drawn through A and B parallel to the unending line and on opposite sides of AB . Join each point (U, V, W, X, Y , etc.) of the unending line to that point P or Q on the opposite side of AB , and let these joints meet AB in U', V', W', X', Y' , etc. Evidently each point of the unending line is thus matched against one point of the line AB , and *vice versa*. The correspondence is truly one to one, and therefore the two lines contain the same number of points.

Is there then but one infinite number, that is, can we set any two infinite groups in a complete one to one correspondence? The reply quite definitely is No! There are many different infinite cardinal numbers. To establish this it will be sufficient to exhibit a scheme whereby given any one infinite group of things we can construct another which cannot be set in one to one correspondence with the whole or any part of the former group, and therefore contains a greater number of members.

For the first group let us take the totality of finite integers, a totality already proved to be infinite. The second group will have as its members all possible permutations of the first group, each permutation being a single member of the second group. For example, the following are three of these permutations:

1, 3, 2, 5, 4, 7, 6, 9, 8, 11, 10, 13, 12, 15, 14, 17, 16, 19, 18, 21
 1, 2, 3, 6, 4, 8, 5, 10, 7, 14, 9, 18, 11, 22, 12, 24, 13, 26, 15, 30
 9, 8, 7, 6, 5, 4, 3, 2, 1, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 29

It must not be supposed that every permutation necessarily has some expressible law of arrangement, merely that every integer appears somewhere and but once. Now let us assume that it is possible to set these permutations in one to one correspondence with the integers.* Let the permutation corresponding to

1. be denoted by $a_1, b_1, c_1, d_1, e_1, \dots$, that corresponding to
2. " " " $a_2, b_2, c_2, d_2, e_2, \dots$, " " "
3. " " " $a_3, b_3, c_3, d_3, e_3, \dots$, etc.

Consider the permutation $a'_1, b'_2, c'_3, d'_4, \dots$ constructed by selecting for its first integer a'_1 , the smallest integer other than a_1 ; for b'_2 the smallest integer not yet employed other than b_2 ; for c'_3 the smallest integer not yet employed other than c_3 , etc. Under the hypothesis this permutation corresponds to some integer, say, n ; that is, it is identical with $a_n, b_n, c_n, d_n, \dots$. But this is impossible, since at least its n^{th} letter, n'_n , is different from that of the other, n_n . Hence it is impossible to set up a one to one correspondence of the second group and all or part of the first group; in other words, the number of members in the second group is different from, and greater than, the number of members in the first group.

The two most important classes of infinite groups are the numbers which the founder of this theory has denoted* by the names Aleph Null and Aleph Eins, the symbols being \aleph_0 and \aleph_1 . We will select as the typical member of the first class the totality of positive integers. Other groups having the same number of members are the totality of proper fractions; the totality of rational numbers, the totality of algebraic numbers, *i.e.*, the roots real and imaginary of all algebraic equations whose coefficients

* Cf. Cantor, *Math. Annalen*, Vol. XLVI., § 6.

are rational numbers. The other number, Aleph Eins, is the number of points on a line terminating or unending, the number of real quantities algebraic and transcendental, the number of points in a plane, the number of points in space, indeed in a space of any finite number of dimensions.

That a finite line segment, no matter how small, contains just as many points as the whole of space, whereas on the other hand it is impossible to assign numbers to the points of this segment so that each point shall have a number, even if all the rational or algebraic numbers are at our disposal—these are statements that to the uninitiated doubtless must appear either quite meaningless or utterly absurd. However, in the light of the definitions given they are clearly defined and readily demonstrable. Moreover, in some lines of mathematical reasoning, particularly in analytics and its applications, they are, at times, of vital importance.

As to the arithmetic of these many infinite cardinal numbers, something has been done, particularly by Professor George Cantor, whose articles in the “*Mathematische Annalen*, Vols. XXI.* and XLVI.”† have laid the foundations of the whole subject. He shows that Aleph Null is the smallest infinite cardinal, in the sense that every infinite group has parts whose number is Aleph Null. Clearly also Aleph Eins is greater than Aleph Null, as may be seen from the following scheme which sets up a correspondence between the permutations of the integers given above and a part of the unending decimal fractions: We will make the permutation 1 3 2 5 4 7 6 9 8 correspond to the fraction

.100101000050001000000100000100000000100000001

or more generally to the permutation a, b, c, d, e, f, \dots corresponds the fraction

$$(.1)^a + (.1)^{a+b} + (.1)^{a+b+c} + (.1)^{a+b+c+d} + \dots$$

The number of permutations of the integers which was proved to be greater than \aleph_0 is hereby proved to be less than or equal to the number of real numbers algebraic and transcendental, which is \aleph_1 .

That Aleph Eins is the next greatest cardinal to Aleph Null has

* Published separately under title, “*Grundlagen einer Mannigfaltigkeitslehre*,” Leipzig, 1883.

† Cf. also Schoenflie’s article on “*Mengenlehre*,” in “*Encyc. Math. Wissenschaften*,” Ia5.

not been proved.* That is, as far as I have been able to find, it is still a question as to whether there may not be some group which can neither be matched against the totality of positive integers nor can the totality of real numbers be matched against it.

The definitions of addition and multiplication are readily extended so as to include these new numbers, but become of little import since if we add to any infinite cardinal or multiply it by any number finite or infinite, less than or equal to itself, it is not altered thereby.

Now let us direct our attention for a few moments to the ordinal numbers.

One of the first things to arise in the study of the finite cardinal numbers is the natural order or sequence in which we are led to arrange them. This relationship, based upon their inequality relations, becomes of supreme importance. Helmholtz, Kronecker and Dedekind maintain that these relations are the fundamental elements in the concept of number and, indeed, the only properties that are relevant to the ordinary discussions of arithmetic. Thus the essential property of seven is that it is next after six. The numbers appear in a sequence which sequence is their fundamental property. There is a first number one; to each number there is another which immediately follows it—the important principle of induction, a corollary to which is that there is no last number—if b comes after a and c comes after b , then c comes after a . The numbers defined by some such set of postulates are what we know as the ordinal number system.

Cantor has invented an interesting and important extension of the realm of ordinal numbers by the introduction of the new postulate that to every unending sequence of integers there is an integer greater than any in that sequence. Thus just as any finite sequence, 1, 2, 3, 4, 5, 6, serves to present an ordinal number, in this case 7, defined as the next after all of these, so in particular the unending sequence, 1, 2, 3, 4, 5, . . . , etc., presents a new ordinal which he calls ω (omega), defined as the next number after all of these. By application of the induction postulate we obtain further ordinals, $\omega + 1$, $\omega + 2$, $\omega + 3$. . . , $\omega + n$. . . , and by a second application of the new postulate another ordinal following all of these which is denoted by ω^2 . Similarly we arrive at numbers

* Cf. Russell, "Principles of Math.," p. 310; Cantor, "Acta Math.," II., p. 404.

$\omega 3$, $\omega 4$, ωn , and as the number following all numbers of this type, $\omega n + m$, a new type denoted by ω^2 . Then follow quite naturally ω^3 as the ordinal after all numbers of the type $\omega^2 n + \omega m + p$, ω^4 , ω^5 , leading up to still another type, ω^ω , and so on, without end. These new ordinals, *i.e.*, all ordinals not developable from 1 by the induction postulate, are called transfinite ordinals.

It is of vital importance that the distinction between the ordinal numbers and the cardinal numbers be kept clearly in mind. The cardinal number has been defined as a class of groups of objects. The ordinal number is the type of relationship presented by a certain sequence of objects, words or symbols.

"There are seven days in the week" means that the week considered as a group of days belongs to the class of groups denominated seven. In this there is no thought of any relationship of order or sequence among the days or among any groups. On the other hand the statement that Saturday is the seventh day of the week does not direct our attention primarily to the week as a group of days but to the arrangement of the days, and makes a statement as to the relationship which this day, Saturday, bears to the days which precede it, not merely that it follows the other six, but that there is a first day, a second day, a third day, a fourth day, a fifth day, a sixth day, and that Saturday is the day that comes next after all of these.

Thus, each finite ordinal points out the relationship of the object in question to a certain finite or terminating sequence of objects to which it is the next in the extension of that sequence. The transfinite ordinal ω differs only in that the sequence to which it relates the object of which it is predicated is an unending one. For example, the points A_1 , A_2 , A_3 , situated on a horizontal line in such a way that A_1 , A_n is a measurement to the right of $1 - \frac{1}{n}$ metres, have a certain relationship of order of position upon the line. Starting from the left we recognize a first (A_1), a second (A_2), a third (A_3), and so on. If we take into our consideration, also, the point at the distance 1 meter to the right of A_1 we may adequately describe its relationship of position to the other points under consideration by speaking of it as the ω^{th} point of our sequence thus extended, and denote it by A_ω .

Cardinal numbers arise from ordinal numbers when we consider the group consisting of a given ordinal number, say "seventh" and all those that precede it. The number of ordinals in this group is seven. In this way to each finite ordinal there corresponds a finite cardinal. No two ordinal numbers correspond to the same cardinal. All this is very simple for the finite ordinals, but when we come to the transfinite ordinals a new phenomenon appears. From the one to one correspondence between the finite ordinals and the finite cardinals it follows directly that the number of ordinals preceding ω is \aleph_0 . But many different transfinite ordinals correspond to this same infinite cardinal. For instance, there are exactly \aleph_0 ordinals preceding ω^2 (including also ω^2 , if desired), as the following scheme of arranging them will make clear:

ω^2 ,	1,	ω ,	2,	$\omega+1$,	$\omega 2$,	3,	$\omega+2$,	$\omega 2+1$,	$\omega 3$,	4,	$\omega+3$
1,	2,	3,	4,	5,	6,	7,	8,	9,	10,	11,	12

All transfinite ordinals of the types suggested in this paper correspond to the same cardinal number \aleph_0 , and the question as to whether there are any of higher character will be left unanswered. Cantor has shown that the group consisting of all transfinite ordinals corresponding to the cardinal \aleph_0 is a group of a higher number. He has not shown that the number of these is \aleph_1 , but has obtained the noteworthy result that it is the next larger cardinal to \aleph_0 . That is, the group of all these ordinals cannot be set in correspondence either with a finite group or with the group of all finite integers, yet every part of it is either (a) finite in number, or (b) of number \aleph_0 , or (c) of the same number as the whole group.

Perhaps I might state in conclusion, as indicating some of the important bearings of this subject, that the first paper upon these transfinite sequences and the infinite cardinals, published by Cantor* in 1882, developed the subject from geometrical considerations and stated it in geometrical language, the topic under consideration being ordered sets of points upon a straight line.

* Cited above (*Math. Ann.*, XXI.)

HISTORICAL SECTION.

ESSENTIAL FACTS IN HISTORY FOR HIGH SCHOOL ENTRANTS.

C. B. EDWARDS.

The importance and the benefits of the study of history are so generally acknowledged that it is unnecessary to spend time in asserting its value as a subject on our school curriculum.

It has a high moral value especially on the biographical side, while to those who must become the political guides and leaders of our country, the study of history is absolutely essential. To these may be added the use of history as a subject of culture and entertainment, and in this department it ranks high, for should not education train us how to use our leisure pleasantly and profitably? To the man or woman who takes a lively interest in present day affairs, both at home and abroad, a good general knowledge of history will be of exceeding great assistance in deciding as to the probable result of legislation, of certain lines of policy, or of national tendencies.

A brief review of the Departmental regulations respecting the study of history in our Public Schools may be given in order to get a general idea of the nature and amount of history that we strive to give the pupils before they leave the Public School.

In the First and Second books (grades I. to IV. inclusive), the work prescribed and outlines suggested consist of (a) Bible stories; (b) Fairy tales and classical myths; (c) Biographies of noted characters in early British and Canadian History. The time allotted in each class is about one hour per week. The age of the children is just suited to stories that appeal to the imagination and the interest taken is intense. This is, of course, the case when the teacher adapts the story to their understanding and is herself heart and soul in the work. In many cases suitable story books are recommended and read.

Beginning with the Third Book (grade V.) the work in history is more connected. Sometimes the pupils are sufficiently interested, say, in Canadian History to procure a text-book which is used in class as a reader. The chief difficulty here is to secure a

text sufficiently simple in language as to be readily understood. In the Senior Third the work is continued with a text book supplemented by stories told and read by the teacher.

The Junior Fourth class work in history is chiefly confined to a general reading of Canadian History, which is briefly reviewed in the Senior Fourth class.

This brings us to the Senior Fourth, the "Entrance Class," where the Canadian History is reviewed and the principal facts of British History are studied. As you all know there is no paper on history for the Entrance examination and in consequence the thoroughness and value of the work done in that subject depends on the skill and conscientiousness of the teacher, aided by the encouragement and advice of the inspector.

If teachers and inspectors would remember that a considerable number even of the successful Entrance candidates will not attend a High School, to say nothing of those who leave school before reaching the Entrance class, would they not be careful that history should receive its due share of attention? Do not misunderstand me—no hint is here intended that teachers and inspectors are not doing their duty by the subject—but only a suggestion of its importance.

The question often asked the inspector is, "How much British History shall we teach in addition to reviewing the Canadian History?" Let us attempt to briefly and clearly answer this very proper question.

The pupils should have a clear idea of the Britons as the Romans found them—their habits and customs—the Roman conquest and its influence—the Anglo-Saxon invasion, driving the Celts into the north and south-west of the island. They should know about the Danish invasion and the part that King Alfred played therein. They should be taught the results of the Norman conquest on the government, the land tenure and the language of the country. Beginning with William the Conqueror and coming down to our present king, the pupils should know the sovereigns in their order, grouped in dynasties. In addition, the name of the king or queen should recall one or more important events marking the reign. Care should be taken to limit the number of so-called important events to those that stand out prominently in the accounts of different historians. One event remembered in its connection is worth a dozen merely mentioned to be immediately forgotten. This method will furnish the pupil with the necessary

framework on which to build, fill up and amplify by future reading or study at the High School, University or by private reading. Many years of experience has proved to the writer the value of this method, both as a means of acquiring the facts and exciting a lasting love for, and interest in, the subject of history.

The learning of facts in their connection with, say, the reign in which they occurred, puts less strain on the memory than by the topical method; it begets a definiteness and clearness that is valuable in all study or work. There is, I know, a prejudice against the Gradgrind value set on facts but the learning of them may be aided by interest, curiosity and imagination both in the teacher and in the pupil. The lack of definite information can be easily proved by asking an average Entrance class to name, say, one of the most prominent Canadian statesmen. The answer will be prompt enough, but ask the one answering, "What did he do to be entitled to be called a great statesman?" and very likely we get the reply, "He was the Prime Minister of Canada." From the beginning let there be association of something done with the name of the historical character.

In conclusion the pupil who has completed the Public School course should have the following equipment in history:

- (a) A knowledge of the chief Bible characters.
- (b) He should have heard of some of the famous classical myths and fairy stories.
- (c) A general idea of the great nations of antiquity—Egypt, Persia, Greece and Rome.
- (d) He should have a clear outline of the discovery and settlement of Canada, its conquests by the British, steps by which self government was obtained, wars external and internal, and generally the broad outline of its history, not neglecting pioneer and local history.

(e) The knowledge of British History should be, as already outlined, a sort of framework, so filled in with interesting and necessary facts as to form a strong, clear and interesting outline which may be filled in and moulded into shape by subsequent study and reading.

This may seem a heavy load for a pupil of from twelve to fifteen to acquire, but it can be done to the pleasure and profit of the child by enthusiastic teachers, aided by interested pupils and suitable books.

CO-OPERATION OF PUBLIC LIBRARY AND PUBLIC SCHOOL.

J. P. HONG.

“ Schooling which results in the taste for good reading, however unsystematic or eccentric that schooling may have been, has achieved a main end of democratic education; and that schooling which does not result in implanting this permanent taste has failed.”—*President Eliot*.

“ The child that by the age of fourteen has not read ‘ Robinson Crusoe,’ ‘ Hiawatha,’ ‘ Pilgrim’s Progress,’ ‘ Greek Heroes,’ by Kingsley, ‘ Tanglewood Tales,’ by Hawthorne, ‘ The Lays of Ancient Rome,’ ‘ Paul Revere’s Ride,’ ‘ Gulliver’s Travels,’ ‘ The Arabian Nights,’ ‘ Sleepy Hollow,’ ‘ Rip Van Winkle,’ ‘ Tales of the White Hills,’ ‘ Miles Standish,’ Scott’s ‘ Tales of a Grandfather,’ ‘ Marmion ’ and ‘ Lady of the Lake ’—the boy or girl who has grown up to the age of fourteen without a chance to read and thoroughly enjoy those books, has been robbed of a great fundamental birth-right; a right which can never be made good by any subsequent privileges or grants. It is not a question of learning how to read—all children who go to school learn that; it is the vastly greater question of appreciating and enjoying the best things which are worth reading.”—*Report of Com. N. E. A.*, 1899.

“ The institution of the greater school by the federation of the Public School and the Public Library is a long step toward true democratic education.”

In this paper I shall not argue for co-operation, but, as briefly as I may, show what can and has been done elsewhere, and indicate what, in my opinion, we in Ontario may do even in small places and with small libraries.

In 1879 systematic co-operation between the schools and the public library began in Worcester, Mass. The librarian allowed each teacher half a dozen volumes for personal use and also a much larger number of books for the use of the children either at school or at home. Thus the teachers secured an abundance of books to supplement text-books and to illustrate subjects. This

new method has been generally adopted, and to-day it is a common thing to find schools well supplied with library books which have been selected and borrowed by the teacher, or which have been selected by the librarian and sent to different rooms or schools in sets of 20, 40 or more, for periods varying in length from two weeks to six months.

(a) What has been done in the schools by means of the library?

What has been done for the schools by means of the library may be summarized as follows:

(1) Sets of books, very carefully selected (for whatever may be the opinion regarding censorship for adults there can be no two opinions as to its necessity for children) are sent to the different rooms for use by the pupils in school or at home. In some places the teacher is held responsible for the books but in Buffalo where this work is carried on extensively this is not required. Rules are of the teacher's own making, but the books, thus sent, are not to be used in any way as a means of punishment by being withheld for breaches of discipline.

(2) Special cards have been issued to teachers, enabling them to draw books for their own use, or to lend to children. The number of books to be drawn varies, sometimes being as large as 40. The books need not directly bear on School work, but may be general literature, even fiction.

(3) In addition to this lists of books are carefully prepared and supplied to the schools or published in the newspapers. These lists are not usually long, and are issued frequently; for instance, lists of books for special days (such as Independence Day, Washington's Birthday), lists for special grades, lists of books bearing on current topics, etc., and are prepared by librarian and teacher jointly.

(4) Courses of reading have been outlined and credit given by the teacher of English for the work when completed.

(5) Sets of pictures, consisting of reproductions of great works of art, photographs of great buildings and great men, stereographs, even pictures cut from magazines and collected in scrap books are loaned to schools and clubs. In the case of copies of great pictures the name of the artist, name of city where original is kept, and other information are plainly written on a slip and attached to the frame.

(6) In Providence, R.I., the librarian, Mr. Foster, visits the

Grammar Schools personally each term, and gives brief supplementary suggestions to the boys and girls.

(b) Great as is the work done in the school, greater still, I think, is the work done in the library itself, for it is of first importance to have the children form the habit of going to the library and learning to use it as a storehouse and workshop.

(1) First in this work I place the Bulletin Board. Intelligently used, a bulletin board for children is a power for good. Post up short attractive, legible lists of books on an interesting subject, and how quickly will the books be read. Post up a picture of a great man, and under it the books or magazines which tell of that man's work, and the books are eagerly called for.

(2) The pernicious age limit of fourteen years has been in many cases abolished; may it rest in peace.

(3) The two book system is used somewhat, so that a child may draw one book of fiction and one of nonfiction.

(4) Pictures have been mentioned already in this paper but the greatest value of pictures is in the library, which gets as many as possible of uniform size, and frames with adjustable backs. These pictures are changed frequently to correspond with the season of the year and with current events. For instance, pictures of birds are of great interest in spring. These pictures at once suggest the bulletin board again, and give an opportunity to encourage nature study.

(5) Children are given access to the books themselves, for books displayed in attractive binding are sure to attract. This, of course, presumes a children's department under proper supervision.

(6) Classes come from the schools to the library for instruction. The librarian or the teacher acquaints the pupils with the leading reference books, shows how to use them, gives some instruction on the use of indexes, tables of contents, etc.

Having summarized what has been done in various places, may I read you a brief account of the work of the Brookline, Mass., Library: "The School Reference Room in this Public Library has been in use since 1899. It contains ordinary reference books, such as encyclopedias, atlas, year-books, hand-books, etc., also a collection of supplementary volumes on subjects studied in the grammar schools; the latter comprise about 850 titles, which duplicated (with readers and picture books) amount to 3,500

volumes. The intention is to have not more than ten copies of a book, the school board undertaking to furnish such books as are needed in larger numbers. We have also 200 titles of elementary readers and picture books for lending to primary and kindergarten schools. The School Reference Room is open to pupils and teachers. The School Reference Librarian is in attendance to help pupils in looking up subjects, or to help teachers in selecting books for their classes. No books are lent to pupils for home use, but each teacher may draw twenty books for her class; these may be kept four weeks and may be renewed. Pupils use the books in the schoolroom, or borrow them *from the teacher* to use at home. We have some mounted scrap pictures to lend, also eighteen sets of stereographs on various countries. The room is open every afternoon and all day Saturday. It has telephone connection with the schools. Once a year each class of the 8th and 9th grades comes to the School Reference Room, and is given a lesson by the School Reference Librarian. The 9th grade lesson deals with the more important and common reference books; the 8th grade lesson with index, contents, copyright, etc., and with an explanation of the card catalogue. The room was established by the joint action of the School Committee and Library Trustees, but is managed by the library with the advice of the superintendent of schools. It has had a special appropriation. Books are sent to and from the schools by express at the library's expense."

One of the earliest experiments in giving systematic instruction to school children at the library was made in 1896 in Wales. The topic for the first year was "The History of a Book." I quote from Mr. John Ballinger's paper read before the Library Association of the United Kingdom: "We didn't tell the children we were going to give them a lesson on the history of a book, or that we were going to give them a lesson at all. We started by saying that we were going to show them different kinds of books, and then beginning with a clay tablet, of which we had one genuine specimen (Babylonian) and one cast (Assyrian) made from an original in the British Museum, we proceeded to show how the book and the art of writing and reading had gradually developed. We explained to them the papyrus books of ancient Egypt, using as illustrations the beautiful reproduc-

tions of papyri published by the trustees of the British Museum. We explained to them also that there had been different kinds of letters used to denote sounds, showing them the difference between cuneiform writing and the picture writing of Egypt. We also dealt with books written upon vellum, using by way of illustration various MSS. and deeds belonging to the library. Passing from the written to the printed book, we explained a few elementary facts about the early history of printing and about early printing in England, using as illustrations four or five books printed before the year 1500, which we happen to possess. Having introduced the subject of printing, we passed lightly over the interval between the early printed book and the modern book, explaining that the former had no title page, no headlines, no pagination, no printer's name, no place of printing, and that the capital letters were omitted for the purpose of being put in by hand, and we showed them specimens of such capitals, and also of books in which the capitals had never been inserted. To lead up from this point to the magnificent books of the present day was to give the children an object lesson in human progress which was not only instructive, but delightful. We showed them by the way the fac simile examples of the Horn Book, from Mr. Tuer's interesting monograph on that subject. We also showed them books printed in Japan and other countries, books for the blind, and similar byways of the book world. After giving thirty-nine lessons to a total of about sixteen hundred children, between January and July of the present year, I say, without hesitation, that nothing I have ever been able to do in the whole course of my life has been so full of satisfaction as the work which I have just attempted to describe."

It is impossible for us in Ontario in our smaller towns and cities to accomplish what the larger libraries of the United States have, but we can learn from their experience, and we can at least do something. The important thing is to start, and to start with enthusiasm. Let me briefly state what I think we can do:

1. Let us interest the teachers and school boards in this matter. How this can be done is shown in a letter from Mrs. Mary E. Downey, Librarian, Ottumwa, Ia. For the first year the work was confined to the High School, as lack of books prevented work with the junior grades, and the demand was so great the librarian

dared not increase it. At the beginning of the second year a reception was given at the library, to which all the teachers in the city, the members of the Library Board and their wives, the members of the Board of Education and their wives, the members of the City Council and their wives, were invited. The reception was a hit and general interest in the work was aroused.

2. If not a separate room, at least a children's corner can be arranged. Have few titles but several copies of each popular book, and always keep the shelves open to the children at stated hours. If the library staff is insufficient to undertake the work, there are always teachers who will give one or more hours a week between 4 and 5. Do not, in securing books, interfere with the main work of the library which must always be for adults. The library is in no sense an adjunct to the school system, but an important independent force, co-operating with it.

3. If the library can not send sets of books to the schools, let it issue special cards to teachers, so that they may secure plenty of books for their rooms.

4. Bulletin boards are cheap, and are of inestimable value, at both schools and library. But don't allow outsiders to advertise church or other entertainments thereon.

5. Buy a few magazines to cut up so that a few pictures of men, inventions, etc., may be posted up with lists of books bearing on them. This will entail little expense.

6. Perry pictures cost 1 cent each, and photographs from 10 cents to \$1 and upwards. Scrap-book collections of pictures on different subjects can easily be started, and will grow. Invite the children to assist. Send these pictures and books to any school or children's class under proper care.

7. Story-telling or interesting talks on some one book or some one writer will stimulate interest. Teachers, preachers, reading men and women in general will be glad to assist occasionally.

8. Amateur photography can be called into use and pictures placed for a limited time on the children's tables. Amateur photographers will be glad to exhibit their work.

9. Let the public know what you want, and let them know that donations of suitable books and pictures will be gladly received, and there will be much of good added to the children's department.

10. Have the senior classes come to the library for an occasional lesson on reference books, etc.

11. Don't *force* good literature on the children, but don't put any book of weak or doubtful moral influence on the shelves of the children's corner.

12. Above all things abolish the age limit.

Much has been done along the lines here indicated in St. Thomas, Sarnia and Brantford, and information regarding results will gladly be given by the librarian of each place, or by Dr. O. J. Stevenson, St. Thomas; Mr. W. Gurd, President Ontario Library Association, Sarnia, or Principal Burt, Brantford.

HIGH SCHOOL PRINCIPALS' SECTION.

SHOULD THERE BE A TEACHERS' UNION?

S. MARTIN, B.A., ST. MARY'S.

In response to the Secretary's invitation to suggest a subject for discussion at this meeting, I imprudently replied that I thought the question of a Teachers' Union might profitably be considered. Having so expressed myself I could hardly refuse to try to say something when he requested me to open the discussion. One reason why I suggested this subject was that a year ago when the same gentleman asked my opinion upon it, I had rather scouted the idea of a Teachers' Union. The view point from which I regard this question has so far changed that I feel that the burden of saying a word about it may fairly be laid upon my shoulders.

The lack of cohesion among the elements of this Ontario Teachers' Association, or among those of the College and High School Department has been so painfully apparent, that it is felt I think by all teachers, at all events by very many, to amount to a nullification of the efforts towards advancement that are made in the various sections. For years, I believe, the educational authorities have felt that the opinions of the teachers as a body might safely be left out of the reckoning. I have not the slightest doubt that the Minister to-day is counselled in the same way. The opinions, unanimously expressed by almost every section of this Association, have been ignored in framing regulations in regard to the work of the schools. It has been easier for a Boston or New York system to gain the attention of the Education Department than for the Ontario Teachers' proposals. I do not think this is to be wondered at. We have not been united: in fact, we are largely in the tribal condition yet. Even temporarily concerted action has been followed by strife and disunion. Such a lack of persistent, united effort is, of course, weakness. Unless we can be federated and have a controlling organization among us, which we loyally support, we shall not deserve, and need not

expect recognition. In the meantime the Education Department may safely go on selecting its advisers, be they faddists, extremists or what not, wherever it may choose.

The establishment of an Advisory Council, while it tends in our direction, is hedged about with limitations. The deliberations of the council are restricted to such subjects as may be submitted. The members are elected not to express the views of their constituents as their constituents may suggest, but to tender advice upon such subjects as the Minister may submit. No initiative rests with the council.

Further illustrating the weakness of this unorganized state among teachers, a little opposition from political constituents suffices to overthrow a minimum salary clause. I do not attach any blame to either of our political parties. They can have no wish to injure the cause of education. The teachers of the Province, if united, could do much to strengthen the hands of progressive public men in their efforts towards improving the schools and the status of the teacher.

A Teachers' Union suggests the methods, regulations and objects of a Labor Union. Here there will be divergence of opinions. Many teachers do not sympathize with the methods of labor unions. Except in large cities teachers are scattered so thoroughly that concerted action along such lines will be difficult, even if deemed desirable. I may say that I have never been enthusiastic over the methods of labor organizations. But of what use is it to stand for minor points. The essential that has been lacking is united effort. I do not expect any organization to be able to make all teachers see things in the same light. I have too high an opinion of the profession to which we belong to expect that. But after any course of action has been fully discussed and fairly decided by a majority, the weight of the profession should be behind the movement, and its whole momentum should be directed against any opposition to the advancement of the general weal.

Just here allow me to read a letter from a friend of whom I asked some information in reference to the Chicago Teachers' Federation. The writer is a teacher in one of the higher grades of schools in Chicago, and is an honor graduate of Toronto University. (Two letters, explaining the plan and success of the Teachers' Union of Chicago, were here read).

In order to secure the support of the whole profession there must be in the constitution of the teachers' organization something of the variety of elements that enter into the make up of a political party. The leaders of a political party seek power and position that they may wisely direct national interests and affairs—so the party press says. Their opposition say they seek only the patronage and power to bestow upon their supporters the spoils of office. Well, at present, probably if they had not something of the craft attributed to them by their friends of the Opposition, they would not long be able to promote their country's welfare in accordance with their own proud claim.

I think that in the constitution of the federation of teachers there should be spread such a variety as would tempt the appetite of everyone. There are many teachers who need no pecuniary incentive to loyalty. They are always on hand when there is work to be done; and they are not in the crowd of scramblers for odd dollars. There are, I know, faithful teachers devoted to their profession whose faces are seldom seen at our conventions. I regret this exceedingly. Perhaps they have lost some of the faith they once had in men; and that is to be deplored. There are many who would be attracted if there were some hope of personal benefit of not too elevated a type. And I feel that a teachers' union that loses sight of these minor interests of the profession will not be a strong union. Accordingly I should advocate, in order to secure as powerful an organization as possible, the making of the rights and privileges of teachers a central plank in the constitution. There is a great deal of legitimate work along this line to be done. Of course, privilege implies responsibility, and the constitution would doubtless contain something in the nature of restraints upon the professional conduct of its members.

My next word is upon the importance of a proper choice of officers. There is need for prudence here, particularly at the outset. The organization being fairly upon its feet, may be depended upon to select officers who will carry out the wishes of its members. But in the initial stages of its development, while its policy has hardly crystallized, it is of the highest importance to have men who will not, for any personal or party consideration, sacrifice the interests of the profession, men under whose direction nothing will be done to detract from the respect in which

such an organization should be held by the public. Men should be chosen whose status in the profession is acknowledged, and who in stability and integrity are impeccable—men who are well known, even if not universally known.

I think, moreover, some continuity in the officers will be necessary. The office of secretary should be of comparatively permanent tenure. Such a salary must be paid as will command the services (if possible the exclusive services) of a good man whose energy should be directed in the interest of the federation.

In the choice of officers we should not be guided by the desire of the candidate. No man should be chosen simply because he may make himself prominent at every teachers' convention. The first consideration in an officer for an organization such as that contemplated is integrity. There must be no suspicion in the minds of the members that the officers might barter the interests of the profession for some personal preferment; or that they will prove traitorous to the teachers if they think it will pay. We do not want "Turner's" men in office.

Mr. Chairman, I have spoken enough to place the question of a federation of teachers before this meeting for discussion. I dare say the secretary will feel like Satan (the devil) when throwing round his baleful eyes "to view the dismal situation, waste and wild," he finds me "weltering by his side."

THE ORIGIN AND AIM OF THE CONTINUATION CLASS.

THOS. E. ELLIOTT, B.A., HAGERSVILLE.

Those of you whose memories and experience extend so far back as 1880 will remember that up to a short time before that date—in the days when experienced men were still in charge of some of our rural public schools—pupils used to attend the schools of their home sections until they were prepared to write for the lowest grade of certificate, the old Third Class. When the time came that the Department forbade Public Schools to take up any work beyond the Entrance, teachers of less knowledge and experience began to bid out and squeeze out the men from even the larger public schools. You know how, to-day, the young teacher fights shy of the school with a continuation annex, but in the years, say between 1880 and 1898, there was nothing to fear, and the beginners, at the bottom of the profession, might range anywhere without risk of finding work beyond their depth.

Here is a quotation from a paper read before the Trustees' Section last year: "You will bear in mind that I am speaking of the rural schools. True, they are not what they were thirty years ago, for the Public Schools of those days took up and gave all the education that is given to-day in Public Schools, High Schools and Collegiate Institutes."

Perhaps that lowering of the Public School standard, working through some twenty years, had more to do with lowering the average of the teacher's value to the country, than most people have given it credit or discredit for.

Why were the schools forbidden to prepare candidates for teachers' examinations?

Again, let me quote, this time from a paper read last year by Mr. Colles, who is now a member of the Advisory Council: "The late government urged the building of teachers' residences in connection with rural schools, as an inducement to teachers to continue in the business, and then, by robbing the Public Schools of every mature pupil in order to multiply and expand the High Schools, and by turning out from these High Schools a legion of

immature teachers, the conditions were made such that a married teacher would starve in the much advocated teachers' residence."

The Minister was just then making a hobby of secondary education. It was an era of expansion of the High School system. The training institutes came into existence. Many new High Schools were established and had to be supplied with pupils, so the argument went forth that up to the point of the Entrance Examination every child should have the chance of a free and easy education; but the High Schools were provided as the only place where school work should be carried on beyond that stage—and there the child must go if studies were to be continued.

In the following ten years the Opposition in the Local House made the Education Department the chief point of their attacks on the Government; and their heaviest guns were trained on the alleged pampering of the High Schools at the expense, and to the neglect, of the Public Schools. Under the persistent hammering the defences at last gave way, and through the breach slipped in the continuation class, in charge of a forlorn hope of the Opposition.

Let me here make a digression of a character rather more personal than is usual in papers of this kind.

In 1890 the writer was appointed Principal of Weston High School. At that time Toronto Junction was just booming into notoriety, but had as yet no High School, and many pupils went from there to Weston. So many went, that the citizens of the Junction saw that they had plenty of material for a school of their own. They established one, which at once cut the attendance at Weston in half, by not only providing a school at home for their own children, but cutting off the southern portion of two townships of York County. Then came the act, engineered, as was believed in York County, by Toronto Junction, providing that the County Council must pay a proportion of the cost of maintenance of that High School in the establishment of which they had no voice, and in the management of which they had, at first, no representation.

They did not like it, for they found themselves compelled to help maintain a school which they did not want, which was an injury to a school they had upheld for almost half a century, and which was only three miles away.

Finding it impossible to get rid of the new school, representative men of the county began to cast about for means of improving the old one. Some of them hit upon the expedient of moving it to Woodbridge, eight miles further north, but it could not be done.

The late Hon. N. C. Wallace, who lived in Woodbridge, was the M.P. for old West York, in which all these places lie, and he became interested.

At that time the Conservative party in the Province, had fallen on evil days. They were few in numbers in the legislature, and they were leaderless. The late hon. gentleman had just emerged from the Conservative rout in the Dominion elections of 1896 with a majority of over 4,000 in his constituency, and according to the public press at the time, was a possible, indeed a probable man for the vacant leadership—and he seems to have been laying out in his mind a policy in some matters.

At any rate he evolved and laid before the Minister of Education a scheme by which some of the children in Woodbridge might continue to be taught there in the Public School, after they had passed the Entrance Examination.

The writer discussed the matter several times with Mr. Wallace and the Minister of Education. If the scheme were carried out it would certainly be hurtful to Weston High School, and many thought it was deliberately meant to be so. The position of Mr. Wallace and the policy of his party were some justification for the idea.

Mr. Ross was aware of this, and gave his assurance that such would not be permitted. What means, persuasion, or argument was used we do not know. The Minister, however, gave way, reversed his policy of fifteen years' standing, and in a modified form the scheme went through—but with the understanding that the work was an extension of the Public School course, and was meant for those who did not expect to leave home to attend High School in any case.

After the class had been in operation for some time Mr. Wallace publicly claimed credit for originating the idea, and in an interview Mr. Ross admitted to the writer that he would not deny that the first suggestion of the class came from Mr. Wallace.

A special grant of \$100 was made by Order-in-Council for the maintenance of this class. Inquiries began to be made. Mem-

bers of the House took the matter up. Other places thought they had as good a right to favors as Woodbridge, and soon the barriers were thrown down, and a general grant was made in 1897 for the establishment of continuation classes throughout the Province. Yet even in 1898 the special grant was made to the Woodbridge class. Continuation classes, then, originated in the brain of a leading member of the party that is now in charge of our educational affairs, and we must expect them to remain as an established part of our system; but they were not established to do the work they are now doing, and always have done.

“Should the Departmental Public School Leaving be Revived?” is a subject to be discussed by the Inspectors’ Section on Thursday morning.

Emphatically “Yes,” is the answer here, if it is to be a Leaving Examination, and not, as before, a running mate for Part I. of Junior Leaving, or a sort of Senior Matriculation into the High School.

Practically, though not nominally, from the beginning, the continuation class and the Public School Leaving were identical with the lower forms in the High Schools, and the examinations for promotion in them. They have not been continuation classes for the many who desire to continue the study of Public School subjects, beyond the Entrance, but beginning classes for some who wish to start at High School work, which they could do better at schools already established and specially equipped for the purpose. And a number of these classes have proved themselves the beginnings of High Schools.

Here is an extract from an address by the present Minister of Education: “The Public School Amendment Act has some important features, and they are important ones. First, I might mention the continuation classes, and the desirability of strengthening those classes, and permitting people of a section who desire to join together to establish a continuation class, and in that way bring almost to their door the advantages of a Junior High School system, if they wish to avail themselves of it. We propose in that way to strengthen education along the line of continuation classes under the new bill.”

The Department of Education, under the present Government, seems to be aiming at the encouragement of the study of agriculture in the rural schools, and at the establishment of

specialized High Schools, Technical, Agricultural, etc. Grants, as you know, have quite recently been made along that line. In a bulletin issued by the Ontario Agricultural College in December, 1906, mention is made of "the Agricultural High Schools yet to be."

Still, the continuation class should not be made to lead to them, as it has been made to lead to the High Schools in the past. Let those who intend to go to an Agricultural or a Technical High School, go there as soon as they have passed the entrance, and let them not remain in the Public School, taking up new subjects, occupying the teacher's time, and overlooking the time-table, to the detriment of the 95 per cent. of genuine Public School pupils.

Then let those who never intend to take a High School course of any kind, attend a continuation class at home, and continue genuine Public School studies. If only 5 per cent. of our children ever get beyond the Public School stage, why cumber our Public Schools with part of that 5 per cent.?

In a letter in the Weekly Sun, of recent date, a writer ventured the statement that in every case where High School work was taken up in the Public School it was done at a loss to the regular work of the school.

At the present time the Public School, and more particularly the rural school, is the weak spot in our system. Listen to this offered before the Trustees' Section in 1906, and with which I fully agree: "The remedy that I propose is that the curriculum for rural schools be simplified so that the essential subjects may be more thoroughly taught."

Finally, I quote from an address by Mr. R. H. Cowley, who since delivering himself of this has been made Inspector of Continuation Classes: "We must hitch the rural school wagon to a star; the Agricultural College is the star, and the continuation class is the lynch-pin. The High Schools look towards the University and the professions, and to some extent toward the business pursuits of the city. The continuation class should look chiefly toward the institution that is soon to become the university of the farmer's son—the Ontario Agricultural College.

"The fortunes of the High School lie in the urban centre; the fortunes of the continuation class are wrapt up in the rural district. It is a case of two firmaments and two stars; the glory of the High School is one and the glory of the continuation class is another."

Surely, if this be so, there must have been a great glory lacking in our heavenly system before this nebulous wanderer swept into our ken.

And if the glory of the High School is one, and the glory of the continuation class is another; then just as clearly, the glory of the continuation class, as it exists to-day, is one, and the glory of the Public School is another.

If the departed Premier had but stuck to his original expressed intention, or if the present head of the Department would only go back to the starting point of the continuation classes, and make them what their very name proclaims they were intended to be; if he would confine their work to a continuation of Public School studies, and not permit them to begin such High School subjects as chemistry or the languages; and if he would revive the Public School Leaving as a distinct examination, and issue a certificate for it, showing proficiency in Public School subjects beyond the standard of the Entrance, but giving no standing for admission to High Schools, then he would have continuation classes, not masquerading under a misnomer, but with a name and aim in accord with the idea of their inception.

PUBLIC SCHOOL DEPARTMENT.

THE PUBLIC SCHOOL AND OUR NATIONAL LIFE.

C. E. KELLY.

Mr. Chairman, Ladies and Gentlemen,—Material greatness does not make a great nation. Material greatness alone has been the one great cause of the downfall of nations. As soon as the influence of wealth commences to corrupt the life of the people the nation starts its downward course. The great Scotch patriot poet understood this when he prayed for Scotland's sons:

“That heaven would their simple lives prevent
From luxury's contagion, weak and vile!
Then, howe'er crowns and coronets be rent,
A virtuous populace may rise the while,
And stand a wall of fire around their much-loved Isle.”

“Righteousness exalteth a nation,” therefore the great nation is a nation of righteous people, whose mental, moral and spiritual life is deep. It is evident, then, that the nation-building forces are the institutions whose influence affects the life of the people. The nation that is ambitious and anxious for its future should be jealous of these institutions. The institutions that determine our national life are the home, the church, civil society, the press and the school. The home may be guarded, but on account of its private nature, it cannot be controlled by the state. The church has passed beyond state control. The press and society may be protected and kept within limits, but they cannot be controlled. The school is the only nation-building force over which the state has absolute control. I believe with John Bright that “the nation in every country dwells in the cottage,” and the institution that is to be of the greatest national importance must reach the people there and impress itself upon their life. Therefore I believe that the public school that moulds the plastic life of the children of the cottage and does much of the work formerly done by the home and the church is the greatest power influencing the life of the people,

and for this reason should be the greatest charge and care of our government.

The Public School stands for a definite ideal, and that is nothing short of the broadest interpretation of our Canadian democracy. Equalization to the fullest extent of the educational opportunities of the young is one of its objects. Another is to gather on a basis of social equality from the homes of the poor and wealthy alike, the children of every race and every creed, and unite them all in an effort to realize our Canadian ideals, and in the search for the better things of life. The Public School is the greatest Canadianizing power that is making for the unifying of all our people into a Canadian race with common aspirations for the future greatness of our country. Our Public School is a miniature democracy, and in it the children should be prepared to become citizens of the larger democracy—the Canadian nation. Education, therefore, means the perpetuity of democracy.

The public school stands for mental culture. To a great extent the Public School teacher is responsible for the intellectual life of the nation. If teaching were merely the imparting of instruction the *personnel* of the teaching profession would not be of so great concern. But the teacher, by the power of his own mental life, must kindle the mental faculties of the children and develop them to their highest powers. The mental view must be broadened, the insight deepened, and the mind disciplined so as to produce a steadiness of application. The taste must be elevated and the feelings refined, so that the cultured individual becomes universal.

In the Public School ethical ideas must be put into practice, for to a great extent the moral character of our people depends upon the moral character developed in the children in the school. The necessity of unceasing labor as a duty to society, and as the greatest force conducive to our own moral and mental welfare, must be instilled. In the daily life of the school the children must be taught the necessity of punctuality, regularity, obedience, industry, cleanliness, decency of appearance and behavior, regard for the rights of others, and respect for law and order. Truth is the basis of all education; therefore, in the school a love of truth must be made the basis of a high moral character in the child. Honest effort in search of knowledge and truth brings success, but deception always produces failure; therefore, in the school honesty becomes a part of the child's life. Recognition of authority is neces-

sary in education, and the child who has learned to see its necessity in the school has prepared himself to recognize and obey those in authority over him in after life. The Public School stands for the development of a high moral character in the people. The teacher must have the personality capable of awakening and developing moral tendencies in his pupils. Through his own spiritual life, through the study of good literature, and through the daily spiritual life of the school, in the association of the pupils with each other, the teacher must awaken and develop—deepen the spiritual life of his pupils.

Upon the awakening and developing of the intellectual life, the moral life and the spiritual life of the children, depend the future success of our industries and our commerce, the stability of our business life and the high achievements of our professions. Therefore, upon no other institution does our national life and success depend so much as upon our Public School.

A tremendous responsibility has been placed upon the Public School. Is that responsibility being efficiently discharged? Is our national life what it ought to be? The best of our public press, in recent leading editorials, complain that our people do not appreciate education; that material advantage is more sought than culture; that those engaged in educational work are not respected as those engaged in financial pursuits; that in both political parties there is a dearth of strong, intellectual and moral men with sufficient patriotism to serve their country; that our moral life is such that men in responsible positions, everywhere, are betraying their trusts, and that in political life there is corruption in high places. It must be admitted that, to some extent, the public school has failed in giving its full service to the state.

Why this failure? The only answer that can be given is that the majority of the teachers have not been capable of doing the work. It cannot be blamed on the curriculum or the regulations. The teacher is the school, and if the teacher has the intellectual, moral and spiritual life and power necessary the proper work will be done, in spite of every drawback. The majority of the teachers are too young. How can boys and girls of eighteen, with immature intellects and moral characters never tested, awaken and develop moral and intellectual life in others? How can the people be expected to appreciate education when it is entrusted to such mere children? Many teachers, through the failure of the inspec-

tors to do the proper thing for the school, have been teaching on "permits." How can teachers with no more ambition than to teach on "permits" be expected to inspire the children with ambition for learning and stamp them with a strong moral character? The literary and professional qualifications of teachers have been too low, and the age of entering the profession so young that many have used the greatest of all professions as a mere means to earn some money to enter other callings. The competition of these mere boys and girls, of teachers with "permits," and of those who are only using the profession as a means, has so lowered the salary and social status of the teacher that many of the best teachers have left the profession, and those who have remained have been prevented from doing their best work by poverty and despair. "Chill penury repressed their noble rage and froze the genial current of the soul."

How can the public school be improved and made efficient? The people do not appreciate the possibilities of the public school when they are willing to entrust its work to persons not capable of doing the best for the children. The people must be taught to appreciate the importance of their children, and demand that the best men and women are none too good to have charge of the training of the lives of children. The *personnel* of the teaching profession must be in the future composed of the most intellectual and moral persons, with personalities strong enough to control and inspire the lives of the children. Only mature persons of strong intellect and character, and with legal qualifications, must be allowed to teach. The age of entering the profession must be raised, the issuing of permits must cease, the literary and professional qualifications must be increased, if the Public Schools are to do their proper service to the state and accomplish the work for which they were organized. It is sad when one man's destiny is controlled by another. Teachers have had but little to say as to the destiny of their profession. They can never be a body of dignified men and women till they have a greater voice in determining the conditions of their own profession. To do this it will be necessary for teachers to be more closely associated. We should have an organization that would include all the teachers and that would have the strength and power to direct the destiny of our calling. If people are to have a healthy appreciation of education it will be necessary that the teacher be given his proper social status. It has been

stated by a university chancellor in Ontario that the teacher's social status is adjudged by the salary he earns, but that the social position of a minister is raised above the salary he earns by the service he renders to the people. This statement does not go to the root of the matter. Is the teacher's service inferior to that of the minister? Is the awakening and developing of intellectual and moral and spiritual life an inferior work? The minister's service is a great one, but it is given to the adult as well as to the child, and the adult has the power of gratitude and the giving of the social status, hence the minister receives some reward in his acknowledged superiority. The teacher's service is just as great, but it is given to the child, and the child has not the power of gratitude, nor the giving of the social status, hence the teacher does not get his rights. The parent does not come in close contact with the teacher, and cannot appreciate his service. The parent does not realize, yet, that a service to his child is as great and important, and as worthy of gratitude, as a service to himself. When parents are conscious of the duty they owe to the child, they will demand that teachers be strong men and women, and they will give them the proper respect and financial remuneration, for they will realize that they cannot disrespect and underpay the teacher to whom they entrust their dearest possessions, their children, without lowering the estimate they place on their own children, and proclaiming their own selfishness. Let us hope that in the near future the Public School teachers will be a body of the strongest and best-respected men and women in the state, so that the intellectual, moral and spiritual life of the people may be awakened and developed to the highest and that our nation may accomplish its true destiny!

TRAINING DEPARTMENT.

THE TEACHING OF CITIZENSHIP IN THE PUBLIC SCHOOL.

A. A. JORDAN, PORT HOPE.

Revelations in our Dominion, not very creditable to us, have led men to consider in what way the Public Schools might assist in bringing about a better state of affairs for the future among the citizens of the country.

To aid in keeping up the interest in a topic so important, and to give my views as to how the Public School might in some measure aid in attaining to higher ideals as to citizenship, are my reasons for choosing this subject.

One of the main purposes of education is to make a man a good citizen, and so it will be at once conceded that training should be given to fit a man to perform the duties of a citizen in such a manner as to advance the best interests of the state.

This at once raises the question as to whom the duty of training the future citizens of our country should be entrusted.

No doubt the church and the home should contribute towards this end—the church because of its formative and restraining influences, and the home because it is the nurse of all the virtues.

The home is a state in miniature, and so involves rights, privileges and duties, as in the wider field the state itself. The home owes certain things to the children, such as protection from danger, sympathy, and sustenance, while, on the other hand, the children must render obedience, love and self-sacrifice to the home.

And as the school is considered a means of extending the training received at home for the wider duties of life, it would seem that the school should also be a field for the training for citizenship.

There are, however, additional reasons for taking this position. In the first place the school bears more resemblance to the state than does the home, because the elements which constitute it are more diverse, being of different classes and creeds and with a greater variety of dispositions and interests.

Then, again, many homes, for various reasons, are not competent to give adequate training along this line. Among these reasons may be noted lack of time and opportunity, want of knowledge in the art of training children to understand what citizenship implies.

Another reason is the fact that teachers generally are better equipped in regard to these matters than it is possible for the majority of parents to be.

Assuming this position, then, that one of the duties of the Public School should be to assist in the training of pupils for proper citizenship, the question arises as to the nature and limit of the work to attain to such training.

In the widest sense everything in the life of the school should contribute to this end—the subjects taught, the rules to be obeyed, the games played, the spirit of give and take which the whole school life inculcates; but it is not with the subject from this point of view I wish to deal, but in its specific sense as a subject or topic of the curriculum.

From this view point, then, I will say that the subject should embrace two important topics, namely, ethics and civics.

It is true that ethics, which is the science of conduct, is already taught incidentally, and taught in this way children acquire much in regard to principles and rules of conduct that is valuable, and will always remain so; but I hold that the subject dealt with in this way only, while in many points most effective, leaves many gaps, and hence a rather incoherent view of conduct as a whole. For example, it might happen that a pupil should have pretty definite notions of the value of politeness and its effects, and yet be quite vague in regard to honesty, or envy, or devotion to duty.

Hence I am of the opinion that the best interests of our future citizens would be served not only by teaching of this subject incidentally, but also by a systematic course taken up by the teacher.

But it may be asked why one should take this position. I answer because moral action, like intellectual action, must find its basis in clear and comprehensive knowledge. This is the position the churches take, as is evidenced by the fact that their systems are believed to be more effective when their children clearly understand their doctrines and requirements through a thorough study and understanding of the Catechism.

I believe the churches are on ground quite unassailable, for zeal

based upon knowledge is tenable always, and clear knowledge tends to zeal.

Again, the testimony of those who have taught the subject systematically for years is that this is undoubtedly one way by which the subject ought to be treated to obtain the best results.

Assuming, now, the correctness of this attitude to the subject, how should it be dealt with? Should there be a text-book to be placed in the hands of the pupils, as in history, or would it be preferable to confine the text-book to the teacher? I should prefer the latter plan, because then the order of taking up topics could be arranged by each teacher as the needs and ages of the pupils might suggest.

In this connection I would respectfully suggest that the Education Department prepare and authorize a suitable text, or authorize one found suitable for the purpose, and that it be compulsory on the part of each teacher to use this text as the basis of his instructions in this subject.

To prepare future teachers for this work, the matter on this course should be made one subject of instruction in the Normal Schools, so that these teachers would enter upon their duties provided with adequate knowledge, and, I should hope, with zeal inspired by those who have had charge of the course.

I now come to deal briefly with the second subject mentioned, civics.

An elementary course in this subject should be taken because a boy who has no real, live knowledge of the institutions and forms of government of his country and methods of procedure, will have but little interest in them, and so is likely to develop into a man ignorant, and hence devoid of interest in the affairs of his country, and, therefore, a man who has not attained to the full status of citizenship.

In this connection, then, I would suggest that the Education Department secure and authorize a text-book on the subject, as in the case of the previous subject mentioned, only that in this case the text should be used by pupils as well as teachers. In this text the most salient features of our forms and methods of government should be set forth in a style lucid and pleasing to boys and suitably illustrated so as to make a distinctly vivid impression upon the mind and feelings of the pupils.

The topics treated might largely be along the lines suggested by

Principal Scott in his chapter on history in the text-book on Methods for use in our Model Schools.

If the subjects I have mentioned above are dealt with in some such manner as I have indicated much good, I believe, will be done. In the hands of the zealous and earnest-minded teacher, the one will give knowledge of and interest in the affairs of his country; the other will tend to cultivate those principles of honor and virtue the possession of which will enable him to withstand the baneful influence of the briber and the grafter, and in time our country will receive an uplift towards that condition of purity so ardently longed for by all men who are truly patriotic to their country.

In connection with this subject there is one other topic that should stand out prominently, and that is our flag—the emblem of our country. The origin and history of the Union Jack should be clearly taught to and thoroughly understood by the pupils; its significance to us as members of the great British Confederation should be made known; how that it stands for justice, honor, protection, fair dealing, and righteousness generally, and, no doubt because of these, it is the flag “that has braved a thousand years, the battle and the breeze.”

I believe, too, that every school in our Province, yes, in our Dominion, should possess a flag, and that it should be hoisted over each school on many occasions in the year, but not on every school day, as is the custom in some parts of the world.

I think important events in the life and growth of the nation, such as the 13th of September, 1759, and the 18th of June, 1815, and also dates corresponding to the birth or death of our great men, should be selected, and that on these days the flag should be hoisted over the schools.

On these dates the teacher should give the pupils a detailed and interesting account of these events, and so the patriotism of the pupils would be based upon and grounded in the truth, so that he would be always able to say with reason why he loves his country, and why he would be willing to lay down his life for it.

In conclusion, I believe that the whole outcome of all the teaching along the lines suggested should lead the pupils to see and to realize in the highest sense that “righteousness exalteth a nation, but that sin is a reproach to any people.”

EMOTIONAL VALUE OF LITERATURE.

S. SILCOX, I.P.S., ST. THOMAS, ONT.

In this paper I am basing my remarks on Dewey's analysis of feeling into sensuous, intellectual, æsthetic, social, moral and religious. He says: "Moral feelings are based upon social feelings, and are an outgrowth of them. . . . The feeling of sympathy is, therefore, the source of all moral feeling. Moral feelings may be extended to include all possible relations, intellectual and æsthetic, as well as the strictly social, but this only when these relations are brought into connection with personality." G. Stanley Hall says: "The development of sympathy has been slow and hard in the world, but it is basal for most of the factors of morality."

True culture is largely a question of the development of sympathy. Not knowing what others do not know, nor knowing better what others know in part; not withdrawing oneself to the study, to become bookish and out of touch with life about us, but experiencing what others experience, sharing the burdens of life, developing interest in one's neighbors, make for culture. In short, sympathy is the basis of culture and morality. Our aim is to learn what literature has to contribute to the development of sympathy and what literature is available for the specific purpose.

Sympathy means, primarily, "feeling with." There may and should be: (1) Sympathy for the self; (2) sympathy for animals; (3) sympathy for plants; (4) sympathy for mankind: (*a*) in the home; (*b*) in the school; (*c*) in the community; (*d*) in the nation.

(1) 'SYMPATHY WITH SELF.

"Sympathy with self" seems an anomalous expression, but it is simply a convenient expression for self-respect. In self-respect is the beginning of the development of all other sympathy.

The available means of developing sympathy of any of the classes named are: (1) by personal experience; (2) by suggestion; (3) by material things; (4) by literature.

The ancient method of imparting morality was like the ancient method of teaching, purely absolute. This method was followed by an improved one, which is at present in the height of its popularity, but will be followed by yet another method, based on more scientific principles. For convenience, let us call the three methods ancient, mediæval and modern, without any reference, however, to historic epochs. We will make a comparison between the teaching of arithmetic and morality in each of these stages.

ARITHMETIC (AREA).

HONESTY.

ANCIENT METHOD.

Multiply the length by the breadth,
e.g., $6'' \times 4'' = 24$ sq. in.

Thou shalt not steal.
Obey this law.

MEDIÆVAL.

Question pupils on a surface in the hands of the teacher, or a drawing on the blackboard. Divide the surface up into sq. ins. Analyze,
1 row = 6 sq. in.
4 rows = 6 " \times 4
= 24 sq. in.

If you had a valuable object and some one took it away from you, how would you feel about it? Do unto others as you would be done by. You do not like others to steal from you; steal not from them.

MODERN.

Pupils are set to work measuring paper, cardboard or wood for a specific purpose. The need of comparing areas arises. The teacher suggests or the pupils discover the method of applying one surface to another. A unit of measure is adopted and the problem worked out in a number of particular cases from which eventually the general rule is derived.

Children are given property to care for, e.g., school plots. With great care they prepare the soil, plant their seeds and rear their plants. They value their own property and guard it against possible destruction. They develop sympathy with other property-owners and will not injure their property, deciding in their own minds, "I will not steal my comrade's flowers." Compared with this self-imposed law—"Thou shalt not steal" is meaning, less.

The conclusion from the preceding comparison is that, in the moral world, the first steps are purely particular applications of a general truth not yet formulated in the actor's mind. The progress toward the general truth is a step at a time: "I shall not steal my fellow pupils' flowers"; "I shall not steal my brother's toys"; "I shall not steal my neighbor's books," etc. Finally he reaches the law, "I must not steal anything from anybody." Some people take so long to learn this, notwithstanding their familiarity with the commandment, "Thou shalt not steal," that their honesty is never apparent outside their own home. They have sympathy

with the members of their own family, but not with the members of their community. We can all recall men of this type—honest within a limited sphere, outside of which they are most notorious grafters. There is no doubt, however, that such a course must eventually weaken the honesty even in the limited sphere. Nevertheless, honesty in the home is necessary as a basis for honesty in the community.

PERSONAL EXPERIENCES.

Self-respect is the basis of all the higher sympathies. The fundamental development of self-respect is in muscular development, or rather in control of normally developed muscles. Hall says: "An able-bodied man who can not fight physically can hardly have a high and true sense of honor, virility; his masculinity does not ring true, his honesty cannot be sound to the core. Hence, instead of eradicating this instinct, one of the great problems of physical and moral pedagogy is to rightly temper and direct it." Hall also says that the development of muscles results in brain-building, and that they are organs of digestion. Further he says: "Muscles are, in a most intimate and peculiar sense, the organs of the will. They have built all the roads, cities and machines in the world, written all the books, spoken all the words, and, in fact, done everything that man has accomplished with matter. If they are undeveloped or grow relaxed and flabby, the dreadful chasm between good intentions and their execution is liable to appear and widen. Character might in a sense be defined as a plexus of motor habits. Modern psychology thus sees in muscles organs of expression for all efferent processes. Beyond all their demonstrable functions, every change of attention and of psychic status, generally, plays upon them unconsciously, modifying their tension in subtle ways, so that they may be called *organs of thought and feeling as well as of will*. . . . Habits even determine the deeper strata of belief; thought is repressed action, and deeds, not words, are the language of complete men. The motor areas are closely related and largely identical with the psychic; and muscle culture develops brain centres as nothing else demonstrably does. Muscles are the vehicles of habituation, imitation, obedience, character, and even of manners and customs. For the young, motor education is cardinal, and is now coming to due recognition, and, for all, education is incomplete without a motor side. Skill, en-

duration and perseverance may almost be called muscular virtues, and fatigue, velleity, caprice, ennui, restlessness, lack of control and poise, muscular vices." (G. Stanley Hall, "Adolescence.") The muscles, therefore, the organs of control, must be developed in order to develop self-respect. The best means of developing muscles is suitable, congenial work. Calisthenic exercises may assist, but cannot take the place of work. Every boy and girl should be taught to care for the body, to make themselves as beautiful as possible without the use of artificial means. They should breathe properly, stand properly, walk properly. Few do any of these things properly. The importance of performing these muscular movements properly is that they react upon the self to produce the proper emotions.

We know that pleasant emotions cause deep breathing, erect stature, normal activity of glands, regular heart beat, etc. We can control the breathing and the poise of the body. If we stand erect, breathe deeply and assume the attitude of cheerfulness, we shall arouse pleasant emotions, which are beneficial to the health of all parts of this system. Whistling to keep up the spirits; the war-whoop of the Indian; the playing of the band to lead the soldiers against the foe—all belong to that class of action that reacts to arouse courage which is required for the occasion.

As an aid to assuming the poise required, there is no stronger influence than that of suggestion by the manner of others. Laughter in others causes laughter in us; sadness its like. Hence the importance of normally developed, self-controlled teachers. Example is more potent than precept. Suggestion is more important from personality than from literature. It is the effect of suggestion of a strong personality that makes that teacher so much more valuable than another, who, though possessing as much knowledge and using the same methods, has a weak personality that suggests only weakness. The teacher who goes before a class, fearful of the outcome, is likely to fail in government. The pupils catch the suggestion of weakness, even though a bold front is opposed to them. The teacher must be self-respecting in order to develop that characteristic in his pupils. No dishonest teacher can, by an assumed air of righteousness, deceive pupils, old enough to be influenced by suggestion.

The third available influence mentioned was material things. This includes everything in and about the school and home, except

the living beings. The site of the schoolhouse, the yard, the fences, the cleanliness, the very blinds on the windows, and, above all, the pictures on the walls, are constantly reacting upon the pupils for good or ill. In a recent number of the *Teacher's World* an instance was given where a picture of war, hanging in front of a class room, had so strong an influence on a particular boy as to make him quite unruly. The teacher replaced the picture by one suggesting peace and quietness, and the boy was a different creature. It is worth an experiment.

The means which we wish to emphasize most specifically in this paper is literature. From what has been said about the influence of the teacher and of the environment, it is evident that good literature, properly interpreted, cannot fail to exert a definite influence for good on those who read it. We shall not attempt to prove this, but simply take it for granted. We shall attempt to present a list of literary productions that will have a specific influence in developing sympathy, hence, morality.

For the development of self-respect we think that biography of men and women who exhibited this characteristic in their own lives is best. Samuel Smiles' "Self Help" is, to my mind, one of the best of such books. Some volumes of biography of Canadians suitable for school use are: "Stories from Canadian History," Marquis and Machar; "Brief Biographies," J. O. Miller; "Pathfinders of the West," Agnes C. Laut; "Poor Boys Who Became Famous," Bolton; "Girls Who Became Famous," Bolton.

It is in this connection that stories of adventure should come in for boys. This spirit is a survival of the time preceding the establishment of a permanent home. What should be our attitude towards such an instinct? Should it be allowed to become vestigial, or should it be kept alive by reading literature expressive of the roving spirit? As long as there are new regions to be discovered and settled, new enterprises undertaken, and successfully conducted, undeveloped resources to be converted into wealth, we need this spirit. As a rule the home ties are strong enough to prevent complete severance of them by arousing the spirit of adventure. In any case, the restless adventurer is vastly superior to the lazy, loafing, unsocial tramp or to the unambitious clod, who seem to be the survival of the lower savage instinct. We venture, therefore, to decide in favor of the literature of adventure, such as, "In the Wilds of the West Coast," "Archie of Atha-

basca," and "The Young Woodsman," by J. McDonald Oxley; "The Adventures of Billy Topsail," by Norman Duncan; "Treasure Island," by R. L. Stevenson; "The Conjuror's House" and "The Blazed Trail," by S. E. White; "Scottish Chiefs," by Jane Porter; "King Arthur and the Knights of the Round Table," by Henry Frith; "Legends of King Arthur and His Court," Greene; "Story of King Arthur," Pratt; "Robinson Crusoe," by Daniel Defoe (or editions suitable to age of pupils); "A Dog of Flanders," by "Ouida"; "King of the Golden River," by Ruskin; "Greek Heroes," by Kingsley or Hawthorne or Peabody; "Captains Courageous," Kipling.

(2) SYMPATHY FOR ANIMALS.

The child should early develop a love for animals. Children should have pets and care for them, not have pets and neglect them. They should own the pets. If the pets are useful, as cats to catch mice, or dogs to guard property, or hens to lay eggs, so much the better. Pet birds, in trees, not in cages, are better than cats. Fish, in aquaria, are suitable pets for the class room. For first and second book classes there is nothing better.

There is so much literature on birds and other wild life that a fair knowledge of them is necessary to enjoy the literature or to interpret it at all. The poem, by Th. H. Rand, on the white-throated sparrow, is practically a foreign language to the one who never heard the bird's peculiarly beautiful song.

"Shy bird of the silver arrows of song,
That cleave our northern airs so clear,
Thy notes prolong, prolong,
I listen, I hear,
I love dear Canada,
Canada, Canada."

It would be interesting to know who loses most in poetry, the student who knows nothing about nature or the one who knows nothing about the classics.

The literature referring to animals is so abundant that it is hard to choose the best. We recommend the following: "Black Beauty," Sewell; "Beautiful Joe," Saunders; "Wilderness Ways," "Ways of Wood Folk," etc., Wm. J. Long; "Watchers of the Trails," Roberts; "Sa-Zada," "Mooswa," "Outcasts,"

W. A. Fraser; "The Jungle Book," Kipling; "Bob, Son of Battle," Ollivant; "A Kentucky Cardinal," Allen; Thompson-Seton's animal stories.

(3) SYMPATHY FOR PLANTS.

There should be sympathy with plants, too. Gardening is the foundation. Children should sow seed, observe germination, care for the seedlings, cultivate the soil, study the wants of plants, the signs of distress, the indications of comfort. They should gather the fruit and eat it, or pluck the flowers and decorate the home or school, or send them away to the sick room. The garden plot at school is of the greatest moral value. Property rights are inculcated, community responsibilities illustrated, and when the absent ones are remembered by being sent a few flowers from the plots, there is a practical example of neighborliness, which is real Christianity. Plants and flowers are best for color work, and hence nature study and color work go hand in hand.

The literature for assisting the teacher in developing sympathy for plants is probably less extensive than in other departments. There should be a good gardening magazine, such as the *Canadian Horticulturist*, Toronto (50c. a year), or *The Garden Magazine* (\$1.00 a year), Doubleday, Page & Co., New York. These give information, which aids in securing successful results, and excellent illustrations, which develop sympathy. However, about all the sympathy necessary will be developed by caring for the garden.

In general literature, poetry would seem to be the best to arouse love for flowers. Morang & Co. publish a selection of poetry on nature subjects in general, which contains some good poetry on flowers. One of our Canadian poets, Bliss Carman, dwells much on the common feeling between man and plants and animals. Read "Kinship of Nature," Bliss Carman; "Plant Life in Canada," Catharine Parr Trail; "Flashlights on Nature," Grant Allen; "In Nature's Workshop," Grant Allen; "According to Season," Parsons.

SYMPATHY FOR MANKIND.

(a) *In the Home.*

Certain elementary processes condition higher processes. There are two dangers in education: first, that elementary processes may become permanent—arrested development—a not uncommon

occurrence; second, that the elementary processes are not developed at all, with the result that all later work is superficial.

In order to develop sympathy for mankind there must be respect for self on which to build. If there is no respect for the self-element, how can there be sympathy for the other-element! The self-element and the other-element are the two sides of the social, *i.e.*, the moral feeling. If, too, sympathy for animals, plants and inanimate nature has been developed, all that is needed is to direct sympathy in this new direction. A child who has cared for plants and animals will be more ready to render service to mankind than a child who has never rendered service to anything.

Upon the selfish ownership tendencies, and upon the sympathy for animals and for plants, we have to build up sympathy for man. What is the principle involved in the development of sympathy in these? Simply service. The better I serve myself the more I care for myself. The more care I lavish on plants, the more sympathy I have for them. The man who feeds, trains and protects animals, especially pet animals, is the one who thinks most of them. There is no other way. No man ever had real love for a horse who has not owned, fed, groomed, hitched up and held the strings over his back at a two-something pace, or cast a leg over the back of "his own colt." Having such a love as this, he is prepared to love his neighbor's horse, not covetously but generously, admiring his fine points, his gait and superiority over his own. We are so apt to ignore or to entirely repress these tendencies to ownership, these desires to care for plants and animals, in order to make sure that the higher tendencies shall receive their proper care, that it is important to establish the relation between them, and to emphasize the essential nature of these tendencies in any scheme of moral training.

Success with any system of training requires, first, that the boy or girl own something, which has cost him or her continuous effort to secure; second, that he care for this property to such an extent as to protect it against possible harm. The actual value of the property is immaterial. Here is where making things has such a hold on boys and girls. It appeals to fundamental interests. We can now answer the question, How can we develop sympathy in the home? Each member of the family must have a service to perform there and must have a part ownership in it.

The literature that will aid in developing the desire to be of ser-

vice in the home will be that which portrays the pleasures of such service. In poetry, Burns' "Cotter's Saturday Night"; Whittier's "Snowbound"; Cowper's "The Task," "The Winter Evening."

Notwithstanding that this paper is supposed to deal with literature as a means of education, I cannot pass the consideration of the development of sympathy in the home without pointing out that household science must be of peculiar value in helping to bring about service in the home, and therefore, indirectly, is an important moral agent. Unless we have actual service in the home, it is not likely that its inmates will enjoy literature dealing with it. We seem to have plenty of girls' books dealing with the home. Louisa Alcott's "Little Women," "An Old Fashioned Girl," etc., deal with life in the home. Boys' books, however, nearly all deal with adventure, which, of necessity, is not home life. Oxley wrote one, "Bert Lloyd's Boyhood," that would do here, but it is better as a type of schoolboy life. History, or rather biography, ought to fill a real want for boys. Too frequently biography ignores boyhood days except to mention a few pranks or idiosyncrasies. Henty, Ballantyne and Stevenson fail to give us home life. George Eliot's "Mill on the Floss" is a very good picture of home life where adversity comes in. It is a book for adults, who can find in it much that corresponds to their own youth. "Colin of the Ninth Concession," by R. L. Richardson, portrays simple pioneer life; "The Dear Old Farn," "Malcolm" (Ed. Sheppard).

(b) *Service in the School.*

Having laid down the principles underlying the development of sympathy, we need not repeat them under each head or sub-head. We shall indicate what should be owned and what service should be performed. We insist that ownership is necessary for the development of sympathy. What can the children own in the school? There are the products of the school garden. There are all the things that may be made in constructive work and in art. To intensify the ownership feeling, these things should not be copies but inventions or adaptations. We are great imitators. I think it is characteristic of the age. The postage stamp craze, the picture post-card, everything is copied. Perhaps some of you remember "Trilby." Everybody read "Trilby." Our school methods are imitations. This should cease. We need at least adaptations,

if not inventions. Children should own their books, though they may be supplied by the Board, and paid for by a monthly fee. Then the pupils should have definite services to perform—cleaning the blackboard, the aquarium, the brushes. Why not the windows, the seats and the floor? I hope that there will be a return to the old method of pupils having charge of part of the cleaning of the school-house. What a chance for the development of sympathy for the school through daily service! The janitor should do his cleaning just the same. Dr. Hodge, in his "Nature Study and Life," gives an instance of pupils' co-operation in cleaning. The result was the entire absence of contagious diseases in the school or spreading by means of the school. When household science gets going thoroughly we shall have this service revived, I hope. I know several cases of incorrigibles who have been kept in control by being placed in responsible positions. Miss M. Kelly, a teacher of New York, who wrote for *McClure's Magazine*, understood this principle. Her stories have been published in book form and are well worth reading.

Literature for developing sympathy with the school: "Tom Brown's School Days," Hughes; "Glengarry School Days," Connor; "Bert Lloyd's Boyhood," Oxley; "The Hoosier School Boy," Egglestone; "The Hill," Vachell; "Marion's Experience," Hill.

(c) *Service in the Community.*

Interest in the community will not be strong until property is owned in it. There seems sound sense in limiting votes to property owners. Home, school and community service should be correlated. Much constructive and art work in the school may be for members of the home. Kindergarten teachers appeal to this interest between home and school. Why should not all teachers in all grades appeal to it? The manual training classes should be willing to make something for the general use of the school or for some public institution, and the girls in household science should be interested in hospitals and in other benevolent institutions.

Literature.—"March of the White Guard," Parker; "Silas Marner," George Eliot; "The Imperialist," Sara Jeanette Duncan; "Dr. Luke of the Labrador," Norman Duncan; "The Secret of Heroism," W. L. MacKenzie King; "The Preparation of Ryerson Embury," Albert Carman; "Tale of Two Cities," Dickens; "Bible Stories."

(d) Service for the Nation. .

The property owner in the community is by that fact a property owner in the nation. The property qualification has always been highly valued by legislators, and rightly so. Of course, the laborer who actually makes wealth is quite as valuable as the property owner. The power to work is an asset.

When we begin to think about national service, we think first of the federal political arena, but legislators are not necessarily nation builders. They represent the nation builders. Every man who does honest work is a nation builder, and this should be taught as the only sure foundation for patriotism. Set the ideal of work for country before the children in our schools. The flag is all right, and it should fly over every schoolhouse in the land. But, unless children are taught to do more than to cheer the flag, there will be little real patriotic sentiment. The work in the school need not reach beyond the national, because, if we succeed in developing citizens with a proper attitude towards their own country, we may safely leave them to develop a wider interest when the occasion arises. We do not want a narrow patriotism that sees nothing outside one's own country. But

“He is the best cosmopolite
Who loves his native country best.”

just as he is the best patriot who serves his immediate community best, and he is the best citizen who serves his family best, and he is the best member of the family who makes the best of the powers that are in him.

Literature for Developing Patriotism.—National poetry and patriotic songs; national history. Recommended books: “Romance of Canadian History,” Parkman, condensed by Dr. Pelham Edgar; “Story of the Dominion,” J. Castell Hopkins; “Stories of New France,” Marquis and Machar; “For King and Country,” Machar; “Pathfinders of the West,” Agnes C. Laut; “Vikings of the Pacific,” Agnes C. Laut; “The Young Seigneur,” W. D. Lighthall.

To develop Canadian nationality, our boys and girls must become saturated with Canadian literature.

THE TEST OF AN EDUCATION.

BY J. DEARNESS, M.A.

(A Synopsis.)

What is the test of an education?

How may we know the educated man?

How can it be determined whether or not a teacher is educating his pupils?

Is a man's success in life directly due to his education, or measurably conditioned upon it?

These are various forms of the same practical and important question.

There will not be agreement as to the answer, while there is disagreement as to what education itself is.

More than one college graduate has been regarded by his neighbors as "a learned fool."

Knowledge comes, but Wisdom lingers.

And Wisdom—the saying and doing of the right thing in the right way at the right time—may not be the sure possession of a man for whom education has done its best. Education perfectly completed its work for a man whom it qualified and disposed to make the best use of all his talents and yet he may not have been either wise or great.

Two writers on pedagogics have said in effect that the highest single test of an education is the ability to express one's thoughts in a cogent, orderly and elegant manner. This formula does not seem to include the evolving of thought worth such expression.

Within a month or two I heard a prominent lawyer state publicly that his recent relations with two men had set him thinking about education. One was an Oxford graduate of 28 years of age, an apparently worthy and respectable man, willing to work at a copyist's duties and wages in an attorney's office; the other man just reaching his prime, left fatherless at 12 years of age, and at that time beginning to bear his part of the burden of supporting the family, now considered by the corporation that employs him to be worth \$20,000 a year. The lawyer ventured to speculate whether if the latter had enjoyed the former's collegiate opportunities he would now be so valuable an asset to society. His

conclusion seemed to agree with the opinion of that philosopher who holds that the value of an education is directly proportional to the resistance of the obstacles overcome in the obtaining of it.

I have inquired of several men, not in the teaching profession, who are regarded as successful by their acquaintances, what measure of their success they attribute to their school-learning. Their answers might be fairly summed up in the following sentence: "I could not have got along without my knowledge of reading, writing and ciphering, but I cannot say just how much or in what way the other studies have helped me particularly." Answers not covered by this statement usually had a clause of moral import such as: "I learned to do a thing over and over again until it was done right," or "I found that when I did my best I came out head or pretty near it."

Education in the public mind is clearly synonymous with a quantum of book-learning or memorized knowledge, and the three arts already named. Of the latter probably enough merely to get along in the world can be learned in twelve months by an average child of 10 or 12 years. The history of recent educational legislation reflects the public estimate of school-education. The Legislature unanimously enacted that rural school teachers should be paid approximately \$500 a year. But public opinion so strongly disapproved of this valuation of a teacher's services that the repeal of the enactment was promised in the opening address of the very next ensuing session. The public conscience cannot be held entirely to blame. The people at large are not justly chargeable with that taint of incipient robbery which would "take something for nothing." They think they are paying fairly for what they are getting and that is what they demand. If the book-learning idea and aim of education is accepted it will stand debating whether they are not right.

There are not a few observant men whose opinions on most subjects are respected in their communities who say that education, both lower and higher, is costing more than it is worth. Assertions such as the following are offered in support of such Philistinism: One graduate states that he belongs with other graduates to several organizations—social, scientific and commercial. In not one of them are the directing spirits the members who spent the years of their adolescence in college halls. The writer of the greatest book produced in the last hun-

dred years is on record as saying that he owed nothing to his university except the stimulus of its disapproval. Of that brilliant galaxy of original thinkers—Tyndall, John Stuart Mill, Huxley and Herbert Spencer—not one of them called any university his intellectual mother. Huxley was in his fourth decade when he ceased regretting his lack of a university training. It was then that he began to measure himself with college men, and it dawned on him, as he says, that if as a youth he had gone through the regular university courses he would probably have accepted and rested upon what the universities taught. Prof. Monroe assures us in his *History of Education*, probably referring particularly to British Universities, that no one of the great scientists of the nineteenth century either was trained in the universities or did his life's work in connection with them. This is quoted not to imply that we owe the universities little but to suggest how much more we might owe them if they had held impression and efficient expression in equal regard.

I do not forget the light that never was on sea or land. No one esteems too highly refinements of taste, qualifications for the rational enjoyment of leisure, in short, all that makes for culture in the best sense of the word. Life in a refined home may be as favorable to culture as residence in a college. In old Ontario, whose map is thickly dotted with towns and villages, even the agrarian population is reached by the church societies, public libraries, lecture-courses, magazines, daily newspapers and various other social organizations.

Let us suppose two young men now twenty-four who, at the age of sixteen, had enjoyed two or three years' High School education, and were equal in every respect except financial resources. One of them has for the past eight years been attending High school and College. The other has during the same time been earning his living and devoting what hours he could spare from his daily labor to self-improvement through the cultural agencies above referred to, and along with this regularly doing some kind of systematic study. Which of these two is to-day the better qualified to establish a home? Which is now and probably for the future the more valuable member of the community? The answer that my limited observation gives is that the man whose experience has combined *doing* and *thinking* is superior to the one whose experience has been merely scholastic.

It may be objected that the *doer* in the supposed situation is an exceptional youth. The objection is met by the claim that under an ideal educational system youths with such ideals and determinations would not be exceptional; possibly in the universities as well as in the lower schools of the future *doing* will not be so exceptional as it is now. Than John Ruskin, few had a better chance to know the full value of university learning and culture. It was he who said, after much observation and reflection, that a wholesome human employment is the first and best method of education. He taught the dignity of labor not as a means of livelihood only but as an expression of normal life necessary to the highest culture and the best moral character. To him the crowning mistake is "mistaking *erudition* for *education*."

This view of the value of successful *doing* is not reflected by the regulations governing the granting of teachers' certificates in Ontario. A youth who immures himself in college, takes a certain percentage on a series of examination papers, attends the Normal College and passes its examinations may, after two years' probation, receive the highest grade of teacher's certificate given in Ontario; while another who may pass the very same examinations equally creditably, attend the same training school and pass its examinations, and prove as worthy a probationer will be denied—the difference being that during the time the former was living in the college the latter was doing efficient teaching outside.

During the last quarter of the century just closed nearly everyone connected with education in Ontario kept his gaze steadily fixed upon the examination paper. The written examination is the natural test for the storage of knowledge. The adoption of the new curriculum seemed the dawn of a better day. If the sun is rising it is through clouds. The newspapers recently published accounts of the presentation of a medal to the youngest child in the Province to pass the High School entrance Examination, and that for the so-called encouragement of education. Was there a word of protest? I heard of none. The normal child of nine or ten years of age whose memory has been heavily enough laden to pass such examination is to be pitied rather than congratulated; indeed had far better be then entering the public school than leaving it. Does it not seem an anachronism that men and women in the normal schools to-day, pre-

paring for the high prize of efficiency in their important calling are invited to a competition for a silver medal to be awarded on examination marks?

Fifteen years ago the leading psychologist on this continent declared, before a body of teachers, that the most momentous truth the science of psychology has to offer the teacher is that there is no impression without correlative expression; "the impression (or knowledge) which merely flows in at the pupil's eyes or ears, and in no way modifies his active life is wasted. It leaves no fruit in the way of capacity acquired, even as mere impression it fails to produce the proper effect on the memory for to take a proper place among memoriter acquisitions; it must be wrought into the cycle of operation. . . . Some effect due to it in the way of activity must return to the mind in the form of the sensation of having acted, and connect itself with the impression. . . . Its motor consequences are what clinch it. In the domain of morality the same speaker held that the tendency to act becomes ingrained in us in proportion to the uninterrupted frequency with which the actions actually occur. If a good resolve is allowed to evaporate without bearing practical fruit it is worse than lost, for it operates to hinder future resolutions and emotions from taking the normal path of discharge; hence the necessity to seize the first opportunity to act on every emotional prompting one may experience in the direction of the habits he aspires to gain."

This view of education, whether new or not, is regarded as true by every leader in the field of pedagogy to-day.

If this view is the right one we should try to make it prevail.

It would mean not only knowledge and intellection, but also efficiency and morality.

The educated man would be one laying hold of life and earning his livelihood by trained powers in a manner beneficent to himself and society, and not only living a useful life but enjoying it and contributing his part to the appreciation and support of institutions for social improvement and enjoyment.

Try to conceive what a change such a conception would work in our schools and colleges, in our tests of teachers and educated citizens.

The tests of progress of a school would have regard to the children's interests and doings as well as to their sayings and writings.

The examiner would be a man of practised judgment. The certificate that gives him the right to examine would be evidence that he had proved an efficient teacher of the grade he is examining.

The rank of the teacher's certificate might not show the profundity of his book-learning, but it would show the proved degree of his efficiency.

The school and the home should have a more vital connection. Each has a part in the education of the child that it can perform better than the other. Their portions should not be divided along the line of *doing* at home and *knowing* at school. Letters and words and figures, the symbols of ideas, are forced too much and too soon into the minds of young children. Most of them are imitative, curious, constructive—their impulses lead them to action; activity in selecting and directing means to conscious ends is Nature's method of education.

I am aware that public opinion is not ripe for schools that will *develop* their attendants instead of stuffing their memories with the symbols of knowledge. Is it not our duty assiduously to cultivate the right opinion and do all in our power to hasten its desired results? It is in this Training Department that the clearer views of the nature and tests of education should obtain. Such study is the special business of its members. Can we not, and should we not, attempt to train every teacher that we graduate, to set forth and defend, by the fireside and on the platform, the richest and highest ideal of education that we can present to them.

WHAT SHOULD EXPERIMENTAL PSYCHOLOGY CONTRIBUTE TO A THEORY OF EDUCATION?

BY ALBERT H. ABBOTT, B.A., PH.D.

As the term "education" has, in ordinary usage, two rather distinct meanings, so the theory of education may be said to have two distinct phases, as it emphasizes the one or the other of these meanings. In the first place, "education" may be said to refer to an end, more or less fully attained, to a result which has been accomplished, to a possession which has been secured, and so one speaks of a person's "education" as of something which he has. As this meaning of "education" is emphasized the theory of education deals largely with the ideal or complete man. In the second place, "education" may be said to refer to the process by which this result has been reached, and in this sense it becomes equivalent to the process of teaching and learning if we confine our attention to schools and their work. As this meaning of "education" is emphasized, the theory of education will, as a matter of course, deal largely with the process of teaching and learning and points of interest closely related to these.

The theory of education which emphasizes the ideal man has one point in its favor. It will possess a degree of unity and completeness which no other form of theory can well possess. It has these properties because the method used is essentially deductive in character, and so the theory of teaching and learning as well as of the subjects to be taught, and the time at which they ought to be taught will be reached largely as a deduction from the ideal man set up as the end of education.

Such a theory has, however, rather obvious disadvantages. In the first place it is competent for anyone to ask, How was this ideal discovered? And that question is a troublesome one, for the ideal of one age is not that of another, nor is the ideal of one thinker necessarily that of his neighbor. And again, there are two aspects of the ideal which ought to be sharply distinguished. If one believe in development, the ideal, as the last stage of such progress, must be spoken of as a possibility simply in order to place something at the end of the series, but such is not an ideal

with a specific content, nor indeed can it be. The ideal man, *as a matter of content* rather than as a merely limiting conception, is an entirely different matter, and as this is the only kind of ideal from which anything can be deduced, it becomes the form in which the ideal man enters a theory of education.

Whatever value such a theory of education may have by way of inspiring and encouraging teachers and others to self-sacrificing devotion, it ought to be viewed with serious apprehension when it enters the realm of the actual practice of educating, for it has no facts on which to construct a safe theory of either teaching or learning, and it has nothing at all of value to say on the question of the subjects to be taught. In any case experimental psychology can contribute very little, if indeed anything, to such a theory of education.

On the other hand, experimental psychology is calculated to contribute much to a scientific theory of teaching and learning, since it is just the mental operations involved in both the teacher and the pupil that form the essential aspect of the psychologist's work.

But just here a rival appears under the name of Genetic Psychology, and sets up its claim to be regarded as the natural basis of the theory of education. It professes to investigate the development of mind from the infant to the adult; indeed in some cases it professes to begin even lower than the infant.

One need give no arguments to-day to prove that the genetic method is the best, most useful contribution of the idea of evolution to biological science. The study of the *dèrèlopment* of plants and animals has made biology what it is to-day. Surely such a method would prove equally useful in psychology! The answer to that suggestion may be put briefly. It is easily possible to study the development of plant and animal organisms. *Consciousness CANNOT be studied the same way.* Plants and animals can be observed and, so far as their structures are concerned, studied genetically, but consciousness is *never* observed either in child or adult life by anyone but him whose it is. Therefore, the first task in the study of child or animal consciousness must be the construction of what one may suppose to be the experience of such "lower" (!) forms on the basis of observed movements, sounds, etc. To construct the great complexity of the adult ex-

perience on the basis of all the movements, sounds, etc., he may make, is clearly impossible, unless one set out with the view that the consciousness of men is essentially the same wherever found, and then proceed to give to the other practically what he finds in himself, and even then the sum-total of bodily movements serves but inadequately the purpose suggested. In the case of the child, however, the matter is more serious, for no matter what his experience may be, his bodily movements must be relatively simple since the requisite nervous co-ordinations are lacking for any but the very simplest movements. For example, he cannot use articulate speech even if he wants to do so, for his vocal apparatus is not yet ready for such a complex task. Therefore the movements, sounds, etc., of the child must be completely inadequate to express the complexity of the adult consciousness, supposing, as Angell suggests, and as we believe correctly, that all the complex mental processes (judgment, conception, memory, imagination, perception, emotion, volition, etc.) "are in one form or another present in consciousness from the very first."* A study of the child or animal under these conditions is valuable as a means of understanding something more about them, but it is useless as giving a solution for the problems of psychology. The interpretation of the more or less convulsive movements of the child or of his cries and smiles becomes itself the great problem, and genetic psychology will have performed its service well if, on the basis of the known facts of adult psychology, it succeed in giving some reasonable idea of what the child is mentally. It can, however, never be regarded as a basis either natural or secure, for a scientific theory of education. That alone can be found in the results of experimental psychology.†

What we understand by experimental psychology may be found stated in some detail in the Report of this Association's Easter meeting in 1903,‡ therefore we need here remark only that it is an investigation of the facts of experience or consciousness under known conditions in order to discover what the facts of conscious-

* "Psychology," p. 230.

† The difficulties in interpreting the adult consciousness are not overlooked here, but we need hardly enter into a discussion of them in this connection. Suffice it to say that an experiment is possible as soon as the observer is able to understand the nature of the task set him. The difficulty of interpretation is not here absolutely overcome; it is only reduced to a minimum.

‡ Also in *University of Toronto Monthly*, Vol. I., No. 3.

ness really are, *i.e.*, to analyze them into their elements, etc., and to discover under what conditions—qualitative and quantitative—these facts arise and combine with one another. In addition to these positive statements it may be well to call attention to the fact that experimental psychology and physiological psychology are not identical. The latter is an attempt, now from the side of psychology, now from the side of physiology, to correlate mental and physiological facts. It is in no sense an *explanatory* science. It must fail completely if it attempt to “explain” either the mental by the physiological or the physiological by the mental. To correlate these two realms, and that only, is its work, and hence it might just as well be called psychological physiology—as indeed in connection with the sense organs and their functions it essentially is—as physiological psychology, which it happened first to be called.

One of the great difficulties in experimental psychology is the discovery of scientific methods by which the more complex facts of consciousness may be investigated. It is evident that such methods may be found for the investigation of sensation much more readily than for the investigation of memory, reasoning, volition, etc., and so it came about that sensations were investigated first, and that exact research in the realm of the complex facts is still largely a matter of the future. The failure to discover methods offers, however, no foundation upon which it may be urged that these facts are not open to experimental research. Just as the physicist has stood and still stands before many problems in hope that the desired methods of research may be found, and yet never doubts of the possibility of investigating all facts in the physical world, so the psychologist stands before the complex facts of consciousness and believes, as he has a right to believe, that no fact of consciousness is by its nature above or beyond the possibility of experimental research. The achievements of psychology at the present day are, therefore, not to be taken as the measure of what it can do, but rather merely as an indication of the direction in which its work lies. Our subject is, accordingly, not What has experimental psychology contributed to a theory of education? but rather What is it by its very nature calculated to contribute to such a theory? It, therefore, involves the question, In which direction should the philosopher, who is con-

structing a theory of education, look for the solution of his problem regarding the facts? Should he look in the direction of a purely speculative philosophy which presents an ideal, or in the direction of a more or less speculative psychology, which presents the child and its supposed development, or should he look for his facts in that department of psychology in which exact scientific methods are used? To ask such a question is surely to answer it, for, if the theory of education is to be scientific in any sense it must be founded upon facts and, even more exactly, upon just those facts which experimental psychology presents.

To a theory of education then, essentially in the form of a theory of teaching and learning, experimental psychology should contribute the following:

1. Scientific definitions of the terms used to designate mental operations.

It is necessary to point out here only two things. First, the elements of any science can never be defined within that science at least, and as the elements of consciousness are the very last and final results of the process of analysis they can never be defined at all. So the sensations—red, blue, hot, cold, etc.—admit of no definition whatever. Second, scientific definitions of the complex facts consist in stating their constituent elements, and in nothing more. This is the only definition or “explanation” which science recognizes in the physical sciences; it is the only kind a psychologist can give if he be true to the methods of science.

To contribute such definitions of the terms used in a theory of education would be by no means the least service which experimental psychology could render, and it can be very largely done at the present day.

2. Experimental psychology should contribute, with such definition, an accurate account of the elements of consciousness and of the conditions under which they arise.

3. In addition to such an account of the elements there should be contributed a scientific theory of the more complex facts of consciousness, such as memory, imagination, association, thought, emotion, volition.

Here one needs to remember that we are not yet, nor are we likely to be for many a day, able to say with any degree of com-

pleteness, what the facts of these complex processes are. Much is known but seemingly much more remains to be discovered. In the absence of all the facts, those facts which are known should be used, as they are in all the sciences, as a basis for strictly scientific speculation regarding the undiscovered facts, and thus the theory be made which may be used as a means of gathering up and expressing what is now known, and of leading to still more discoveries. Such a stimulating theory of complex mental operations is needed in a theory of education, for the teacher is one who may well be looked to to test the theory in a rough way, and so be able to throw out suggestions to those who may be able to test it accurately.

4. The last contribution which need be mentioned is already hinted at in the last paragraph. We may state it as follows: When speculation along educational lines goes beyond the facts of experience, as these have been discovered, which it certainly must do, experimental psychology should be regarded as the corrective and check on such speculation at every step, since, particularly in a theory of education, agreement with fact rather than mere logical consistency must be regarded as the test of the acceptability of any hypothesis.

This latter contribution is, after all, the abidingly necessary one, for through it alone will the educationist and the psychologist be kept in living touch with one another. When the educationist speculates as to the facts, he has always the means of ascertaining whether his guess is valid or not by simply trying it, or having it tried experimentally, and he would do well to look upon his speculations continually in that light. It is healthier for him, and it is better for science. If a discovery is made our knowledge is advanced one step; if his theory be proven false perhaps a not less important advance has been made, for he is set to work again along probably more profitable lines, and the rising generation has been spared the all-too-sad results of an error applied to educational practice. This latter is, after all is said and done, just what everyone wishes to avoid, for the purpose of education is to train children not according to this, that or the other theory, but to train them as they alone can be trained, namely, in accordance with the conditions which consciousness prescribes in its very constitution.

INSPECTORS' DEPARTMENT.

THE SCHOOLS OF MASSACHUSETTS AND NEW YORK STATES.

BY G. K. MILLS, B.A., I.P.S.

Massachusetts is not an agricultural state in the sense in which this term is understood in Ontario. Throughout the western part the Berkshire Hills are everywhere from 500 to 800 feet high. After leaving them the railroad crosses the valley of the Connecticut River and continues through a succession of low hills until it reaches Boston. If one may judge from the number of stone fences, the country must have been covered by small boulders brought down by glacial action, and when the forest was cleared the work of removing these stones must have been enormous. Even when cleared of these, the soil is thin and stony, only a few inches covering beds of coarse gravel or the solid rock. No wonder that the opening of the enormous fertile tracts of the central and western states brought about an exodus from the New England states which practically removed the agricultural population. To-day these hills are overgrown again with small timber, and about the only indications that much of the state was once farmed are the stone fences running through the woods, the gnarled old apple trees, and the cellar holes which indicate the location of houses that have long since disappeared.

But Massachusetts has become a remarkably wealthy manufacturing state, and this has also contributed to the depopulation of the rural districts. It is true that around the towns and cities every attempt is made to win produce from the soil to supply the necessary market truck and milk, but even with the high prices received, the cost of artificial manures which must be liberally supplied to the soil so reduces the profit that to our Ontario farmers it would look as though these people were hardly making a living.

The division of the country in Massachusetts is called a

"town" not a "township" as with us. This town is irregular in shape and size, but would probably average five or six miles. The term "town" includes not only the district but the village or town that is situated in it. Each "town" (township) is a unit and is independent of every other town and to a great extent of the state in matters of education and government. They do not elect a council, as we do, and leave all expenditure in their hands. Every town holds an annual meeting in March, in the town house, and in the "warrant" calling the meeting notice is given of all business that will come before it. At this meeting the citizens vote all appropriations of money for roads, streets, lighting, schools, etc. Every ratepayer has a right to take part in the discussions and to vote on these appropriations. It is a veritable village-moot. At the same meeting, or at an adjourned meeting held in April, three (or more as the town may decide) "selectmen" are elected to superintend the expenditure of the money voted for roads, streets, etc., and a school committee of three to manage the school affairs of the whole town. These elections are usually by a show of hands, but the secret ballot may be adopted if the meeting so determines.

The school committee engages the teachers and the superintendent of schools, frames the courses of study (beyond a few subjects that are compulsory in all schools), selects the text books, purchases all supplies, attends to all building and repairs, consolidates the schools of the town if they think it advisable, and has in fact, complete control of the educational affairs. No appeal from its action in any matter can be made to any higher authority. The state confines its efforts to advising, stimulating and supplementing local activity. Compulsory legislation usually follows when a large majority of the towns of the state have adopted any improvement in educational methods.

There are ten normal schools in the state, each capable of accommodating two hundred students. The course is from two to four years, and while the schools are well attended, they do not by any means supply a sufficient number of teachers. The state does not set a standard of qualification for teachers. While local sentiment usually demands a certain standard, this varies with the town. Some require that the teachers shall be normal graduates, others that they shall have attended normal school or have taught for three years, while in others they are required to pass an examination set by the super-

intendent of schools. As this superintendent is engaged from year to year by the school committee, it behooves him to be easily satisfied with the qualifications of any candidate favored by a majority of the committee, or by some aggressive member of it. I visited one town where, out of seventeen teachers, nine were without complete normal training (two years), five without complete high school education (four years), and three with a year or less at high school. In fact only about 40 per cent. of all the teachers employed in the state are graduates of normal schools, and about 50 per cent. have attended normal schools.

Every town and city, either alone or in union with another town, is required to employ through its school committee a superintendent of schools who has the care and supervision of the schools, under the direction and control of the school committee. This superintendent must possess a high standard of scholarship, and pass a state examination in the methods, history, science and philosophy of education. His powers and functions are not further defined by state law. His relations to the school committee are purely advisory, and he fulfils those duties that they may direct. He is usually engaged yearly, although after satisfactory service he may be elected to serve "during the pleasure of the committee." The minimum salary of superintendents is \$1,500, of which the town or united towns must raise \$750, while the State gives \$1,250, three-fifths for the salary of the superintendent and two-fifths towards the salary of the teachers. Besides actively supervising the schools he makes recommendations to the committee regarding school books and supplies, courses of study, engagement of teachers, etc.

Massachusetts has no state text-books. Each town and city selects its own, under the restriction that a change requires a two-thirds vote of the school committee. All schools, both public and high, all text-books and other school supplies are free; that is, they are purchased by the town or city and loaned to the pupils free of charge. This applies to tools, implements and materials used in the various forms of manual training, including cookery. The average cost per pupil throughout the state is \$1.60 per year.

Evening elementary schools are required in towns of 10,000 or over, and evening high schools where the population exceeds 50,000. Every town and city with a population of 20,000 or

more is required to provide manual training in both public and high schools. A "resolve" was before the state legislature in March of this year for discussion, the object of which was to compel, by 1910, the establishment of trade schools in every town with a population of over 10,000, the particular trades to vary with the nature of the local industries.

Owing to the concentration of the population in the manufacturing centres of the town, and the number of trolley lines running to almost all parts of the state, the problem of consolidation of schools is much simpler than in most other states in the Union. I would judge that perhaps one-third of the district schools of the state have been consolidated with the centres of population in the towns. This process of consolidation first began in 1869, but it has proved a very troublesome question even under such favorable conditions. The attendance at the district schools is very small, averaging not more than twelve for the fifteen district schools that I visited. In the town of Berlin, however, about twelve miles from the city of Worcester, I visited a school with an enrollment of 32, and an average attendance for March of 28. Around Boston for a radius of fifteen miles most of the towns have consolidated their schools, the children coming to the centres on trolley cars or being drawn in "barges." Around Worcester, Springfield and Westfield for the same radius, few of the towns have adopted the consolidation system. In the towns of Berlin and Shrewsbury the ratepayers at the town meeting in 1906 voted against consolidation. The committee of the town of Berlin spent \$3,500 last year in repairing and fitting up the five district schools of the town. In the town of Brookfield some of the schools were consolidated, but they have gone back to the district school. I found the same to be true in Framingham, and in Penfield, New York State. The standard arguments against consolidation are about as follows:

1. Parents do not like to have their little children go so far from home.
2. Little children become cramped and cold when they ride so far.
3. Incompetency of drivers—drunkenness, bad language, lack of control of the children.
4. Some of the larger children use foul language, sing ribald songs, impose on the little ones by crowding, throwing hats out of the rig, or worse.

5. Increased cost.

6. Decrease in the value of farm property.

7. Impossible to get tenants when the school is so far away.

While no doubt much of the opposition arises from an innate opposition to what appears to be a radical change in a long established custom, and most of these arguments could be met successfully, still the fact remains that very many of the towns of Massachusetts have decided against consolidation, under much more favorable conditions for its adoption than we can have in Ontario, and this after numerous illustrations of its working in all parts of the state, and after a discussion extending over from ten to twenty years.

Agricultural conditions in the state of New York are much like those in Ontario, and their school system resembles ours more than it does that of Massachusetts. Very few of the rural schools have been consolidated. The course for teachers in the normal schools is two years, but provision is made in many high schools for an elementary training which entitles them to a certificate for two years. All teachers in graded schools, unless they are graduates of some college, must hold a state normal school certificate, but this is not necessary for teachers in country schools. The school commissioner, who corresponds to our school inspector, is elected every three years by popular vote. He may have been a teacher, or he may have followed any other occupation, but if he can get the party nomination he may be elected. He visits the schools once a year, and as his official existence depends on the votes of the people he, like the same official in Massachusetts, gives no offence, and makes no requests that may tend to make him unpopular with the people. The condition of the fifteen rural schools in Massachusetts, and the eight in New York state that I visited, is sufficient evidence that such a system is not the best for the school. Such poor school accommodation does not exist anywhere in Ontario, unless perhaps in the newly settled parts of the districts.

At the time of my visit a bill was before the New York Legislature which proposes to do away with the present system of school commissioners, and appoint superintendents who shall hold office for five years. No superintendent shall have more than forty schools, and he must visit them every month (some said every six weeks). The state will pay \$1,200, and the district

\$300, and \$300 for expenses, for each superintendent. As the State Board approved of the bill, and everyone spoken to seemed to think it would become law, I have little doubt but the rural schools of the State will be greatly improved before long. If the eight rural schools that I visited are a fair sample of the rural schools of the state there is plenty of room for improvement.

Owing to different conditions, it is a difficult matter to compare the work done in their schools with that done in ours, and to say that one is better than the other; so much depends on the individuality of the teacher, the principal of the school, and the superintendent. Shortcomings in their schools, as in ours, are frequently the result of poor administration rather than of any weakness in the system. The following features in their system impressed me as particularly worthy of our consideration:

1. Every grade was supplied with from four to six different reading books instead of being confined, as with us, to one book for perhaps two years (junior and senior classes). Besides providing the usual literary selections, these reading books deal with a great variety of subjects; and by the time the pupils have passed through the eight or nine grades of their schools they have a much broader general knowledge, a better appreciation of literature, and the school has done its duty towards cultivating a taste for books that are worth reading. In addition to these books for class reading, very many of the rooms of the graded schools have a small reading and reference library.

2. More attention is given to the English subjects, such as reading, literature, composition (oral and written), and history. Their children write better English, they read with much greater appreciation, they speak readily with a correctness of expression and an intelligence not often met with in our schools. They do not spell better and the standard of arithmetic, particularly in the lower grades, is lower than ours. Their history is a large book written as an interesting story, while ours is a wretched little index of historical facts. The same comparison might be made of the geography.

3. The classes in the American graded schools are smaller than in ours. In their primary schools I saw no room seated for more than 42 children, and it was a rare thing to find more than this number in their grammar schools (grades 5 to 9). The

usual number was from 35 to 40. As the pupils in the lower grades require more individual attention the classes are smaller.

4. In every graded school of a fair size there was a principal's assistant. For example, in a 10-roomed school there would be eleven teachers. The additional teacher allows the principal freedom from teaching for an hour, or perhaps two each day, to attend to the necessary business, and supervision of the school, and provides for the proper teaching of special subjects, such as art and music. If this assistant is qualified to teach these subjects she does so, but if not she relieves the principal or some other member of the staff who is especially qualified. The timetable is arranged to suit the conditions.

5. The law regarding school attendance and truancy is apparently much better enforced in Massachusetts and New York than with us. In Massachusetts the children must attend school until they are 14. Between 14 and 16, if they wish to obtain a position, they must go with one of their parents to the superintendent's office, and present a certificate from their teacher, showing satisfactory school attainments. They are then given an employment certificate. Even between 16 and 21 an employment certificate must be obtained. To get this the applicant must be able to read at sight, and to write legibly simple sentences in English. If he is unable to do this an employment certificate is issued to him on condition that he attends night school. His employer is held responsible for his attendance at night school if there is one in the town. This is to guard against illiteracy among foreigners.

In New York state, if the pupil wishes to leave school after he reaches fourteen, he must obtain an employment certificate from the commissioner of schools, or from the principal of the town school. To obtain this he must have attended school for 130 days since he was 13 years old. The school records show the age of the pupil in all cases, and cannot be disputed. If an employment certificate is not applied for, the child is regarded as a pupil of the school until he is sixteen.

6. The most important feature of the Massachusetts school system is that of a single school committee for each town. This corresponds to what we would term a township board of trustees. It has been in force so long and has proved so satisfactory

that no one thinks of any other system. It has many advantages among which I may mention the following:

- a.* The cost of the schools is equally distributed over the town.
- b.* The schools are better and more uniformly equipped.
- c.* The salary of the teacher is based on ability and qualification.
- d.* Small schools are consolidated if it is found to be better and cheaper.
- e.* The higher grades are consolidated in schools equipped for the purpose.
- f.* The poor district has the same advantage as the wealthy.
- g.* The school committee is usually composed of progressive men who are aware of the benefits of education, both to the individual and the state.
- h.* The efforts of the superintendent can be directed more to the teacher, as he has only one board to deal with; such a board is more likely to demand that the servant be worthy of his hire than a dozen boards scattered throughout the township.

Their urban school buildings are better than ours and are better equipped. The teaching I believe to be better. This is owing to a better system of supervision, smaller classes, special teachers of art and music provided for by the extra teacher, and the emphasis laid on English and related subjects. Manual training and household science formed a part of the course in all the urban schools that I visited. Their teachers do not seem to work so hard as ours for examination purposes. I admit that when an American pupil comes to our schools we regard him as being far behind our pupils of the same age. So they are in arithmetic, history of England and Canada, geography of Canada, and, if they are in the lower grades, they will likely be behind in spelling. Too often our teachers regard this as a sign of the weakness of the American schools, but it appears to me to be due to a difference in the views we hold as to what is most necessary in an elementary education.

Our rural schools are far in advance of the rural schools I saw in either Massachusetts or New York state. Our buildings, school grounds, school equipment, with the exception of books and seats, are so much better that I was astonished. It is by no means fair to compare the rural schools of Massachusetts with ours as the difference in the agricultural conditions and the rural

population is so great, but in the wealthy agricultural state of New York they are little better. The buildings are small, very old, unventilated, playground very small and unfenced toward the road, or frequently none at all, closets as bad as our worst, no globe, only one map, a very cheap one of the state, in half of them, two or three maps in the others, no pictures, and no wall decorations save the broken and discolored plaster. I saw only one rural school building that was creditable. It was a new building but it was not equipped any better than the others.

I can attribute the much better condition of our rural schools only to the efforts of our school inspectors backed by the authority given them by the Province.

THE TRUSTEE SYSTEM : IS IT SATISFACTORY?

T. A. CRAIG, KEMPTVILLE.

In our school system the three factors immediately related to actual school work are the teachers, the inspectors, and the trustees. If these fail to work harmoniously, or if any one of them be negligent of duty, the work must correspondingly suffer. Of the three, the teacher is the most continuously under fire. He is the most subject to attack, to undue and unfair criticism, to reckless interference, and to unwise and unkind treatment.

It would not be in good taste for me, on this occasion, to make remarks either complimentary to, or disparagingly of, the inspection, and so I will let it pass.

It is to the Trustee System and its workings that I am to devote my attention with a view to drawing your criticism and expression of opinion, rather than to presenting my own conclusions and notions.

I will present the subject under the following headings, and in as brief a manner as possible: 1. What the Trustee System is? 2. A short historical review of the system. 3. The work committed to Trustee Boards. 4. The basis on which the system rests. 5. Is it working satisfactorily? 6. Suggestions.

May I add, that throughout this paper my remarks refer to rural school boards more particularly. It was these I had in view in my study of the subject, and it is to these that I invite your attention, although much of what I have to say will also apply to urban boards.

WHAT THE TRUSTEE SYSTEM IS.

It might be defined as a scheme for the management of the schools which is workable if certain assumed conditions be secured. It has the merit of being inexpensive, of localizing the interest in the schools, and of distributing the labor of looking after them. It allows the parent, or, at least, assumes that it allows the parent, to provide as good educational advantages for his children as he may desire. It commits to the general public the welfare of the state, and places on the people the responsibility for the character of the citizenship of the succeeding generation.

A Trustee Board is an elective body, and owes its existence to the will of the people concerned, rather than to appointment by any corporate body or constituted authority. It is in honor bound to comply with all legal requirements and judicial orders

connected with the office. The service is, for the first period, compulsory, but of such a nature that it is worthy the free and hearty response of those who may be called to undertake it. The qualifications for office will be outlined under another heading. They are, however, of such a nature that almost any ratepayer is rendered eligible for appointment.

HISTORICAL REVIEW.

Previous to the passing of the Constitutional Act, in 1791, there was no effort made to provide for general education in this province. In that year Gov. Simcoe gave the matter some consideration, but his views were based on the parochial school system of England, and were not very acceptable to the majority of the inhabitants of the colony. Little progress was made until, in the year 1807, an Act was passed establishing eight public schools in the entire province, and a board of five trustees appointed for each school by the lieutenant-governor. These schools formed the nucleus of our present High Schools. By the Act of 1816 provision was made for the establishment of elementary schools, and for the appointment by the people of three fit and discreet persons to act as trustees, with authority to appoint a teacher, but not to remove him without the consent of a higher authority; to make rules and regulations for the government of the schools; to determine the text books to be used, and to have charge of the school property. The Act of 1824 removed the power to determine the qualifications of the teacher from the trustees to a more central authority. It was the Act of 1841, however, that proposed a radical change in the already established system. By this Act the trustee boards were replaced by township boards of five commissioners each, elected by the people, and entrusted with all matters affecting the common schools in the respective townships over which they had jurisdiction. The Act of 1843, however, repealed the Act of 1841, and reverted to the trustee system introduced in 1816 and 1824. By this Act, trustees were to have power to appoint teachers, determine their salaries, select the text books to be used, regulate the course of study, and provide regulations for the government, management and discipline of the school. The Act of 1846 was based on Dr. Ryerson's report, and continued the office of school trustee as established in 1843, but withdrew the power to make regulations for the government, etc., of the schools. All Acts passed since that time have adhered to the trustee system. Gradually the discretionary powers conferred on these officials have been limited, as circumstances and the growth of the system demanded.

THE WORK COMMITTED TO TRUSTEE BOARDS.

It is not necessary, on this occasion, that I should specify in detail the duties of Trustee Boards. I know that you are quite familiar with the obligations devolving upon these officials, and that you are well aware of the importance of due attention to the work entrusted to them.

School trustees, like all other elected bodies, are required to comply with certain well defined legal requirements which are necessary in their case to the maintenance of satisfactory educational advantages. There is a standard of excellence prescribed for their guidance and direction, to which they are expected to attempt to attain, if not entirely reach. Refusal to act after accepting office, or neglect to perform the duties of office, renders the official liable to a rather severe penalty; he may, however, free himself from all such danger by compliance with the minimum requirements of the Act. They are allowed discretionary power as to the degree of excellence with which they perform their duties, the quality of articles provided, the character and suitability of school buildings, the qualification of the teacher employed, etc. It is in this connection that a very embarrassing difficulty arises through trustees determining to exercise their discretionary power as to how far they will comply with the minimum requirement, and taking exception to certain expenditures, the purpose of which they do not understand, and which they conclude, without investigation, is useless and ill advised.

The duties of the office make considerable demand on the appointee's time, and as there is no remuneration for service, it is scarcely to be wondered at that these officials refuse to neglect the demands of personal interest, to perform public duties which have been forced upon them. The qualifications for office are not exclusive. Every British subject who is a resident ratepayer of the section, and has attained the full age of 21 years, is eligible for appointment. It too frequently happens that the selection is not a good one, and that the trustee elect has neither an interest in the school, nor a willingness to serve. Incompetence, penuriousness, or negligence should not be a characteristic of any school board.

THE BASIS OF THE SYSTEM.

I said at the outset that the system is a scheme for the local management of the schools, which is workable if certain assumed conditions be secured. There are other conditions which are not assumed, such as its relation to our municipal system, its dem-

ocratic character, etc., with which I will not trouble you, but which are essential to the system, and the real basis of it so far as its constitutional aspect is concerned.

The first of what I shall call the assumed conditions which I will mention is, that persons elected to the office of school trustee should have a due appreciation of the advantage to the individual, and the benefit to the state of a well disciplined and thoroughly trained citizenship, and, as a consequence, a wholesome interest in the work, and a strong desire to keep abreast of the educational progress being made.

A second assumed condition is loyalty to state orders, and a willingness to perform the duties of office without apparent remuneration for service. It is hardly the right of an executive official to question the justice of the orders issued by the state, and to sit in judgment on the duties he was elected to perform.

A third assumed condition is freedom from those animosities and contentions which divide communities, such as political, racial, or sectarian prejudice. A divided, wrangling trustee board is not only a useless factor in our educational work, but it is a positive hinderance to the undertaking.

Another condition is a proper recognition of the honor conferred through election to an office which is, or, at least, should be, one of the most cherished and sacred in the keeping of the people. To commit the training of our children in such a large measure as we do to the care of our neighbors is no small concession on the part of parents.

The state expects, if it does not demand, that every trustee elected should have a proper recognition of his relationship to society, and to social organizations. A due appreciation of the honor conferred through the call to office is very desirable, and unless it exists the individual chosen is likely to be a detriment to the work he was appointed to assist and to advance.

IS THE SYSTEM WORKING SATISFACTORILY?

While the system is a workable one, my impressions are that it is not a working one. My conclusions are based on experience with trustee boards: articles appearing in the press from time to time; the condition of the teaching profession; the lack of public interest and enthusiasm in educational work; the expenditure for education, etc. Now, while the trustee system is not wholly to blame for all deficiencies of the character indicated, I am satisfied it is the one factor in our school system which is most at fault, and which is the most serious barrier to any effort towards improvement. As indicated throughout this paper, the

trustee board is the most important element in the educational work of the section or municipality over which it has jurisdiction. The efficiency of the school cannot rise higher than the general conception which the board has formed of the work committed to its care.

Certain causes which I hold are at present determining the course pursued by the people in regard to public education, and which are given expression in the actions of trustee boards, are worthy of consideration. The fact that in a very large number of school sections throughout this province the percentage of ratepayers who have children attending the schools is low, is undoubtedly one reason for a lack of interest in school matters. The majority of the ratepayers who have no direct interest in the schools are not likely to be philanthropic enough to provide liberally for the education of their neighbors' children.

The prevailing utilitarian conception of education, and the determination to value it as a means to better qualify one to become wealthy, is another fruitful source of dissatisfaction, and a cause which too frequently becomes effective through trustee boards. Arising out of this view of the work, is the notion that the cost of maintaining our schools is a direct burden on the people, for which they receive no adequate return. A determination to maintain the rate of taxation at as low a rate as possible, by appointing as trustees only persons who will act in harmony with this contention, is the natural result.

We, who are more actively engaged in the work, feel that we need more ready and willing co-operation from the people, through their representatives. We differ in our views and convictions regarding education from the masses who are engaged in manual toil. We know that the highest civilization is only attainable through the training which we are attempting in our schools and colleges, and we are convinced that it is false economy to refuse or neglect to provide most liberally for the work of educating the children and youth of our country. The average conception which our people have of education is not high. Culture goes for little with us, and intelligence is at a premium only when it is believed to be a matter of personal concern. It appears to me that the surest and safest index to our educational progress which we have, is discovered in our trustee boards, and the attitude which they take toward the work.

SUGGESTIONS.

In my study of this subject I have been more and more convinced that the trustee system is superior to any other scheme for the local management of our schools which we could well devise.

I cannot see that we would gain by abandoning the section system and resorting to township boards, or commissioners. These have their commendatory features, but they also have objectionable features which appear somewhat serious in relation to our scheme for general education. We err in taking it for granted that the work of the school is confined to the school room, and that it should not reach beyond it; that once the boys and girls cease to attend school we have nothing more to do with them; that our work is confined to the training of the children; that it would be impertinent, if not criminal, were we to attempt to educate those who have passed beyond school life. So long as we adhere to this view, and persist in carrying it out, we will feel that our schools would be better if they were under a board of management which would be less in touch with the people, and more imperious in its demands than our trustee boards are. If we would carry our work to its legitimate end by making the school a centre of educational influence for the section or community, we would, I think, discover the superiority of the trustee system.

I believe it would be wisdom on our part to do something to improve the attitude of our trustee boards towards education, and in this connection would offer the following suggestions:

1. That an effort be made to inform the general public regarding educational matters. This might be done by the distribution of circulars and similar educational literature; by providing each trustee with some such magazine as the *School Trustee*; by preparing an address to be read to the ratepayers at the annual meetings; by a judicious use of the school library, etc., etc.

2. That trustees be allowed some remuneration for service, say fifty cents, or one dollar each, for each of three meetings held during the year.

3. That each school board report the proceedings of the first meeting held after the annual meeting to the inspector, and submit a general report of the educational work of the section to the council of the municipality within which the section is situated.

I hoped, when suggesting this subject to our secretary, that the task of introducing it for discussion would be assigned to some person who could deal with it in an abler manner than I could. I have, however, tried to present some thoughts on the subject, and have adhered to the view that the development of the system is preferable to reconstruction. Owing to the limited time allowed, I have not attempted to enlarge on the thoughts offered, but hope to hear criticisms of the position which I have taken, and additional suggestions tending towards the improvement of the system.

*STATUS OF PUBLIC SCHOOL INSPECTORS RE THE
PROFESSIONAL EXAMINATION OF PUBLIC
SCHOOL TEACHERS.*

C. B. EDWARDS, B.A., I.P.S., LONDON.

It is universally recognized that the success of our schools depends largely upon the skill and efficiency of the teachers employed therein.

The Education Department is devoting its best efforts to devise methods whereby the professional training of teachers may be improved and made as nearly perfect as can be. School boards are awakening to the necessity of paying larger salaries to their teaching staffs, and in this they are supported by public opinion as expressed in the press of the country, and by the rate-payers who elect the school trustees.

It remains for the public school inspectors to assist the education department with their advice and suggestions as to how the professional training of teachers may be done, so as to secure the best results from the means employed. It is a duty they owe to the department whose officers they are, and to the county councils and boards of education who look to them for expert guidance on all matters concerning the efficiency of the teaching staff, the equipment of the schools, and recommendations for the improvement of education generally.

Of all those connected with the administration of educational affairs, there are none so well qualified to judge of what is requisite and necessary in the training of teachers as the public school inspectors.

This, in spite of their natural modesty, is admitted by everybody—themselves included.

The valuable reports issued from time to time in various countries keep them informed as to the trend of education elsewhere, and, in addition, there are the works of specialists whose books, issued from year to year, are of great value in awakening thought and stimulating interest.

Not the least valuable information acquired by the inspector is gained by his daily contact with the teachers under his supervision. Excellencies are noted and defects disclosed.

It is to him that teachers just beginning come for advice and inspiration, and it is in observing their work that he decides as to the worth of the training they have received in the Model or

the Normal School. Ought he not, therefore, to be called upon to advise as to how these teachers should be trained, and to have the charge of the examination, whether Model or Normal, which decided their status?

Then, again, is it not the case that some of the Normal school masters have never taught in a Public School, and their experience is limited to the Training School attached to the Normal Schools? The number of subjects that must be mastered in the year demands close application to text books, to the detriment of practical teaching.

This will be more apparent and harmful when the Model Schools are abolished, and those who attend the Normals will be entirely without experience in teaching.

A few facts as to the amount of actual teaching done by Normal Students may be interesting. They teach on an average, twenty lessons in a year, about two days' regular teaching. Is it fair to admit or reject a student on such a limited amount of actual work?

At most, only two lessons are taught in any subject, no more than the students did in the Model Schools. We are told of the great benefits of manual training and nature study, where pupils are educated by doing things, but the same men who so justly praise these subjects propose to train teachers to teach by not letting them teach.

As a matter of fact, the students spend ten times the time in manual training that they give to teaching.

The lack of practice in teaching is recognized by the department in the granting of interim certificates, valid for two years, and made permanent on the recommendation of the Inspector, upon whom is laid the responsibility that should be shared by the Normal School staff, a one-sided arrangement, surely.

It is unnecessary to dwell longer on the proposition that in the matter of the professional training of teachers the public school inspectors should have a large share in determining the curriculum, and in conducting the examinations.

On the completion of the four new Normal Schools there will be in this province seven of these institutions, and it should be a matter of much care to select and prepare a suitable curriculum, as well as to select Normal School masters who will be entirely competent to train Public School teachers.

The programme of the Normal Schools may, generally speaking, be divided into theoretical and practical. The theoretical comprises the attendance on lectures given by the staff, and

the study of text books prescribed. The practical part consists of the work done by the students in the public school or schools attached to the Normal School for practice.

This latter is a matter of vital importance, not only to the students in training, but also to the pupils and teachers of the practice school. At the present the custom is for the students to observe—about five in a room—for one month at the beginning of the term, then each afternoon they teach two or three half-hour lessons in each room. This leaves only the forenoon for the regular teachers to do their work. In the United States Normal Schools student teachers take charge of a class for a period of from four to six weeks under the direction of the regular teachers. As five of the Normal Schools will depend for their practice schools upon the Public Schools of the cities in which they are situated, the making of the best possible arrangements for practice teaching are exceedingly important.

Would it not be practicable to allow the students to act as substitutes for a limited time, or take charge of a class under the supervision of the regular teacher? This would be more beneficial than teaching type lessons, because it would give them experience in actually conducting a class in ordinary programme of the school. This, of course, is merely an illustration of some of the methods that might be considered in arranging for a suitable Normal course. It seems reasonable to think that the advice of the public school inspectors on such matters would be very valuable to the Superintendent of Education.

Is there not at present a tendency among beginners to undervalue the so-called little details of school room work, and to concentrate their energies and time upon a few of the school subjects?

Not long ago a teacher, newly appointed, asked me which method of teaching reading to beginners I would recommend, phonic, word, sentence, etc. Upon inquiring what methods had been recommended by the Normal School master, she replied that as she had no experience in teaching before going to the Normal, she had failed to get any clear and definite idea as to which was the best method or methods to follow. Would not continuous teaching in a part-1 room for, say, one or two weeks, under the supervision of a skilled teacher, and after due observation and suitable lectures, serve to fix some clear ideas as to methods in the student's mind?

Every inspector has to assist in conducting the examination of the Model School students, and, therefore, has detected defects

which may possibly be remedied. May I ask, is it in the type lessons, or in the review or drill lessons, or in the general routine work of the school that the students do their best work?

A few words may be devoted to the final examination, or the absence of it.

Shall the present go-as-you-please method be continued, or has the pendulum swung far enough toward the abolition of examinations?

Even provided that men with a thoroughly practical acquaintance with public school work be selected as teachers in the Normal Schools should there not be some uniform test during or at the end of the term?

There is a test applied to those who are graduated from a university, a medical school, a law school, or a theological college.

It, therefore, appears reasonable that the 1,000 or 1,200 students who will attend the Normal Schools yearly should be required to pass a uniform test before being permitted to take charge of a school.

Only a short time ago a Normal School master, in speaking of being able to judge whether or not a student would make a good teacher, stated that he could tell better after seeing the teacher, say, two half days in her own school than by being her teacher in the Normal School one year.

It may be that too much attention is given in this paper to the arrangements for practice teaching in the Public School attached to the Normal School, but experience has amply proved the necessity of some plan being adopted that will give the student in training a fair share of practice in teaching, without hindering the progress of the children attending the Public School in which the students teach.

For six years the London Normal School has been using a twelve-room school for practical teaching, and the advantages, as well as the defects of the plan followed during that time have been pretty well developed.

A conference between a committee appointed by the Inspectors' Section with the inspectors in the cities where Normal Schools will be established, and the Superintendent of Education, and the Normal School principals ought to be able to devise a plan that would give the best possible results.

If this committee were in possession of suggestions from all the Public School Inspectors, it would be thereby enabled to profit by the rich experience of those who know what training is most needed by young people to make them successful teachers.

One idea must be plainly stated and firmly held—that to be a good teacher one must have special fitness in addition to the acquisition of a certain standard of scholarship. It is no disgrace not to be able to teach school, the discredit is in remaining in the profession after the discovery is made that the wrong profession has been chosen.

This weeding out process falls largely on the shoulders of the inspector, but there should be more done when candidates seek to join the ranks of teachers.

In conclusion, it is hoped that this paper, however imperfect, will result in united action on the part of the Public School Inspectors with respect to the professional training and examination of teachers.

*THE STATUS OF PUBLIC SCHOOL INSPECTORS RE
THE PROFESSIONAL EXAMINATION OF
TEACHERS.*

(SECOND PAPER.) L. A. GREEN, B.A., INSPECTOR FOR ALGOMA.

The agitation of the last twelve months for more improved and more efficient schools has brought to the notice of all who have given attention to matters educational that the most natural way in which to secure the desired proficiency is to make our teachers more capable—train them in theory, in practical teaching, in the administration of the school law and regulations, and in all that pertains to the proper care of a school.

It is our humble opinion that in former years, under the old order of things, inspectors did not come in sufficiently close contact with the teachers in training, did not know their idiosyncrasies, their excellencies and their defects, or what school each was best adapted for. Every rural community has something peculiar to itself. The inspector visiting these communities periodically, learns what these peculiarities are. If, therefore, he has a personal acquaintance with the teachers, gained by his association with them in their academic or professional course, he is able to intelligently recommend trustees to employ a certain teacher, and advise teachers to apply for certain schools.

Cases of the fitness of things are well known to all of us; and, therefore, it is unnecessary for illustrations to be cited here.

Model school masters put their students over a course of psychology, school management, methods and principles of teaching. Students apply these uniformly and attempt to cut every lesson according to the pattern given them, only to find that this will not work out in the actual experience of a school-room any more than a tailor can fit every man by cutting according to the same measurements. The Model School and the Normal School fail, in that the practice obtained in these institutions is not that actually required in the rural school. Students teach in a well graded, well disciplined, well organized and thoroughly equipped school, and expect that this is going to be of material assistance to them when they go into a school a few weeks hence. But they are soon brought face to face with difficulties that did not arise in

their practice training, and with circumstances that their training in the graded school will not meet; hence they are thrown on their own resources, to originate methods, to experiment, often with fatal results. The inspector, if permitted, would be of material assistance in perfecting the course given at the training schools, knowing the difficulties that are likely to arise to the young teacher in his first school.

It is a matter of frequent occurrence that the knowledge of school law many teachers in training receive is mechanical, formal and vague. They learn the duties of teachers, of trustees, the laws governing holidays, certificates, reports, classification, and yet do not know how to practically apply them. Teachers will question the right of the fifth class pupil attending school, apparently ignorant of the regulations governing such; will send incorrect reports, and that, too, later than allowed, not knowing that there is a time limit fixed by law for all such matters.

A thorough practical working knowledge of these (law and regulations) will bring a teacher in closer touch with the board of trustees, the ratepayers, the pupils, and the community at large. Teachers must realize their responsibility outside the school room if they would make the greatest success of their work in the school. They must be resourceful, independent; must advise, assist, co-operate, and they cannot do this unless they know what is required by law of all parties with whom they are associated.

Further, by a more intimate relationship between inspectors and teachers, much of the so-called dread of an inspector's visit would vanish. Teachers must have the co-operation of their superior officers. They must have the confidence of the inspectors, and this cannot be acquired without a more frequent visitation of the training schools than is expected under present regulations.

The system in operation in Manitoba is well deserving of serious consideration. The inspector is the model school master. He does his inspection during the early part of the year, and during the fall term assumes the duty of training those teachers who are preparing to enter the rural schools. In the three months' course he is able to tell exactly the teachers that will make a success in his schools. There is but little chance for a mis-fit, and the progress of the work will be much more satisfactory.

Now that Model Schools in Ontario are being abolished, the

inspectors' opportunities for knowing the capabilities of the teachers who are to assume control of the schools will be fewer, and that close relationship between inspector and teacher, which is so necessary to the most progressive work, will be an impossibility.

Some plan should be adopted whereby each inspector would be made acquainted with the standing during his training course, of each teacher attending a Normal School, from his county or district.

It is for this association to work out such a plan and submit it for future consideration.

SUMMARY OF THE PRESIDENT'S ADDRESS.

W. H. STEVENS, B.A., LINDSAY.

Fellow Inspectors:—

On account of the limited time at our disposal and the great amount of business to come before this department to-day, I shall endeavor to be as brief as possible in what I wish to say on this occasion, in fact I shall not attempt more than a short outline of what I should like to say on the subject I have chosen.

The subject is "*The Duty of the State to the Child.*"

As an introduction, allow me to say that I regard the child as the greatest asset of the state. This, I think, needs but little argument to prove, because just as the child is trained and educated to become a good citizen, just in that proportion will the state be great and prosperous among nations. History shows us, all along the line, that where the state has neglected to educate the children, it has dropped behind in the onward march of greatness and strength.

Since, then, the child is the greatest asset of the state, the state is in duty bound to provide and maintain a thorough system of public instruction. Among the things to be provided, it appears to me that the following are of first importance:

(1) *Accommodation*, including proper buildings, play grounds, seating, lighting, heating and ventilation.

Buildings—As inspectors, you know that, in Ontario, very many of the school buildings are defective in comfort and surroundings. The architecture is poor, and the grounds worse. Not things of beauty, as they should be, to appeal to the finer and proper esthetic feelings of the children. This, it appears to me, is an everlasting loss to the children. On the other hand, many of the buildings are good and the surroundings are as they should be—all credit to the sections.

Play Grounds—In many cases the play grounds are much better than the buildings and in a very great number of cases the grounds could be made good with a little attention on the part of the trustees and people.

Seating—In many schools the seats are quite in keeping with comfort, but in others the seats are poor and very poorly arranged. Often the seats are too far from the desks on which the work is being done, resulting in great discomfort, and sometimes in deformity to the body, curvature of the spine and other

defects. The proper arrangement of seats costs nothing when placing them, and the defect is therefore entirely inexcusable.

Lighting—The light should be admitted from the left mainly, and well to the back of the room—never from the front of the pupil. The lower end of the window should be at least as high as the top of the head, when the children are seated. The quantity of light that should be admitted to the school room varies, to some extent, on account of local conditions, but, generally speaking, the area of the glass of the window should be about one-fifth of the area of the floor of the room, and the windows should extend well up to the ceiling, which should be about thirteen feet high. This may seem to some a matter of little importance, but it saves the eye strain, and does not cause headache where the light is sufficient and properly admitted.

Heating—The temperature should be kept at about sixty-eight degrees in a school room, and it should be evenly of that temperature all over the room. At this temperature all should be comfortable.

Ventilation.—This is a matter of vital importance and in all cases should have the most careful attention. No one can work to advantage in an atmosphere of impure air, not to mention the positive injury that will assuredly result to the person so surrounded. The greatest English and American experts on this subject give it as the result of their experiments that a child can learn from three to five times as much in a room in which he has pure air and comfort as he can in a room in which impure air accumulates. The present school regulations lay down the proper ways to secure a sufficient supply of pure air in a school room. The plan, as you know, is to admit the fresh air directly from the outside to the room, bringing it in under the floor in air-tight boxes, or galvanized iron flues, and up under the stove, which is surrounded by a jacket. If a furnace is used, the air is admitted directly from the outside to the base of the furnace. The foul air is to be taken out of the room from near the floor, and fast enough to change the air in the room at least three times every hour. I need not enlarge further on this, since the plan is given in Circular Number 33. In all cases the air must be under control.

I shall now refer briefly to *Equipment*. It appears to me that many of the school boards and some of the teachers confuse the *Equipment* of the school with the *Accommodation*. Circular 33 makes the distinction perfectly clear.

A person would think it out of place to refer to such a self

evident subject as the proper equipment of a school. The best teacher possible can not do good work without good material to work with. Allow me to give one or two comparisons. If the farmer were compelled to get along with old or worn out implements, I venture to say that agriculture in this or any other province of our fair Dominion, could not be carried on in anything like an efficient way. What would the farmer do to-day without the self-binder? What could he do without the seed drill or the modern cultivator? It is quite evident that without the best implements the farmer could not do his work. How, then, can the teacher be expected to do good work without good, modern equipment in the school? There is only one answer, the teacher cannot do proper work with poor equipment.

Lately there has been a marked improvement in equipment, and if the new regulation is carried out, all the schools will soon be supplied with maps, globes and libraries, and other necessary equipment.

I thank you, gentlemen, for the very careful attention you have given me while enumerating some of the necessities of a progressive and up-to-date system of instruction in the greatest and best province of our great Dominion.

HOW TO IMPROVE OUR TEACHERS' INSTITUTES.

D. D. MOSHIER, B.A., B.Paed.

The solution of the problem of improvement in any given case is inseparable from a knowledge of the conditions affecting the matter in question. This paper may, therefore, have for its introduction, "*The Institute as it Is To-day.*"

A student of County Teachers' Institutes in this province will find from 50 to 120 teachers present. That number will be found to represent from seventy-five to eighty-five per cent. of the total number of teachers in the inspectorate. The chief factors affecting the percentage of attendance are:

- (a) The convenience of the place of meeting.
- (b) The time of year in which it is held.
- (c) The interest taken in the proceedings.
- (d) The relative worth of the teacher.

I have added the last one because I believe that the better the teacher, the better his attendance at the institute. Possibly it is also true that the chronic absentee struggling from year to year in the more backward schools, may honestly think that he can afford neither the time nor the money to attend, never dreaming that the supposed cause of his absence is really the effect.

From the attendance the observer turns his attention to the subjects for discussion. These are, for the most part, professional in character. Speaking generally they come under the following heads:

1. Topics intended to meet the needs of the inexperienced teachers. Of necessity there is a sameness in these from year to year, and county to county.
2. Topics regarding the details of methods.
3. Topics on organization and management.
4. Topics of a general character. These for the most part are discussed by men in other professions.
5. Topics dealing with educational principles.
6. A few subjects (too few) of a literary or entertaining character.

Four impressions are sure to be made upon the observer.

1. The practical, intensely practical, character of most of the

papers. So much is this the case that one wonders if the teachers will not go back to their work more tired than inspired.

2. The silence of the many and the speeches of the few.

3. The absolutely unselfish character of the work of the institute as a whole. Not one topic that would suggest unionism with its two leading features, a level of service that all can reach, and a flat rate of remuneration.

4. The absence of trustees.

So much for attendance and subjects. Just a few words on cost. The cost of the meeting, with one hundred teachers present, was as follows:

To the country (province and county equally)	\$ 50 00
To the teachers (estimated)	300 00
Total	\$350 00

Its value to the teachers, in dollars and cents, was less than its cost to the country. Its value to the country, in better service, was more than its cost to the teachers.

SUGGESTIONS RE IMPROVEMENT.

1. In the matter of attendance little need be said. Nominally attendance is compulsory. It might be well to add that non-attendance should be counted as time lost. Records of attendance are seldom well kept. A good plan is to have membership cards. These bear the name of the teacher and spaces to indicate attendance. These are punched at the close of each half-day's session, and upon admission to the evening meeting. At the close of the institute these cards are left with the secretary, who reports the attendance, as required.

2. Subjects must be largely practical and helpful in character. This, however, must not be overdone. There should be variety. A series of practical five-minute papers by young teachers should be on every programme. The greater the number of teachers taking part, the greater will be the interest. Variety is the spice of institutes as it is the spice of life. The teacher's work is, of necessity, narrowing in its character. Therefore, subjects by men with far broader experience and outlook, educational and otherwise, than the teacher, should be on every programme. Then, too, the value of entertainment of an elevating character should not be overlooked. In short, the success of the institute

depends to a very great extent on the individual or committee whose work it is to prepare the programme.

3. Discussion should be encouraged. The president or chairman should do some good work before the paper is read, or the address delivered. Unless this is done, and well done, one's faith in the doctrine of the survival of the fittest may receive a few rude shocks. The chairman, too, should encourage frank and fearless criticism. Teachers are sensitive to criticism. They feel keenly the difference between giving and receiving. Autocrats for 200 days in the year, they find it difficult to become democrats for two. The chairman must aid in the transformation.

THE TRUSTEES AND THE INSTITUTE.

4. The character of the institute should be modified, and its sphere of influence enlarged. Possibly, too, it might be well to change the name. Call it the School Institute, or Educational Institute, to indicate that it is for all connected with the work of the school. Thus far it has existed almost solely for the teacher. Its exclusiveness has been its weakness. The trustee has been overlooked. He has been told that he was welcome to come, but he has not come. Something should be done to bring the teachers and trustees of the county together. The section should pay the expenses of the trustees while attending the meetings of the institute and the trustees as well as the teacher should be required by law to attend. In the meantime much can be done to secure the co-operation of the trustees in the work of the institute without the aid of legislation. Give them a place on the programme. Make the institute of value to them and their attendance will increase.

5. The township school institute could be made of great value. The place of meeting should be at one of the best school houses in the township. The trustees and teachers of the township would observe the regular work of the school during the forenoon. The afternoon should be given to discussion, the evening session to addresses. In some cases it may be found that better work can be done by the township institute held as above one day, twice a year, than by the county institute for two days once a year.

TRUSTEES' DEPARTMENT.

PRESIDENT'S ADDRESS.

C. W. KELLY, GUELPH.

In all civilized countries education has come to be regarded as a leading force, not only in producing the best results in public intelligence, virtue and citizenship, but also in developing the material resources of the nation, attended by a corresponding increase of the national wealth. This is attested by the advantage gained by those nations in which schools of agriculture, commerce, the arts and trades have received the highest development. The superiority of the Prussian arms has been attributed not only to the military organization and discipline of the army, but also in a large measure to their magnificent system of civil education. On maps showing the distribution of wealth and illiteracy in the United States, the maximum of wealth is generally found in those sections where the minimum of illiteracy prevails, and so the wisest statesmen and publicists have found that the best way to diminish the crime and pauperism of a community is to lessen its ignorance. It, therefore, becomes apparent that the schools of the country bear a most vital relation to the well-being of the nation. This leads one to a consideration of what sort of men trustees of schools should be, intrusted as we are with matters of such wide-spread interest. It is not absolutely necessary that a school trustee should be a highly educated man. Of course, the better his education the better his equipment for effective service, provided his superior education does not rob him of his common sense. Still, experience has shown that some of the most effective trustees have been men of somewhat limited scholastic attainments. What is more important to a trustee than a degree from a university is that he should have a broad, practical, wholesome, sympathetic view of the requirements of the present-day education and with high ideals for the welfare of the coming generation, possess moral courage to carry his views into effect.

He will be a man so impressed with his high calling that he will give time to familiarize himself with the educational interests

of his province, and to keep himself informed as to the latest and most approved pedagogical methods. He will see the value of associating himself with other men intrusted with similar responsibilities, for the exchange of ideas and the discussion of problems pertaining to the right discharge of his duties. This will necessitate his taking an intelligent interest in the Provincial Educational Association, and that he does not draw himself into his shell and imagine that "he knows it all." For, as Emerson has said, "Every man is my master in some one thing; in that I learn of him." The wide awake, aggressive, up-to-date trustee will go further and regard it a pleasure to inform himself from the literature of the broad question of education. What more interesting and illuminating books could a trustee peruse than those dealing with the history of education, the great lights down the centuries who have to do with the fashioning of our present educational system, and the process of evolution by which our present high standards have been attained. And surely every trustee should read the educational journal or magazine of his province in which are discussed the live issues of the schools of to-day; for we may rest assured that whatever degree of perfection may have been reached, that degree is only a starting point for further advancement.

Gentlemen, do not think that I regard myself for a single moment as the embodiment of the virtues which I have endeavored to describe as properly attaching to a model trustee. Far from it. I fear that I am too much like the finger board that merely points the way, but does not go itself. Yet I have striven sincerely to place before you what I regard as perfection in trusteeship—and as for myself, I am simply a pilgrim in search of this perfection. For the young and rising generation not only look to their teachers for a good example, but expect to find in those who direct the policy of the schools and who visit in their official capacity, men who are worthy of their respect, and to whom they may look for moral, as well as for intellectual guidance and inspiration.

At the present time our government is endeavoring to solve the problem of better educational facilities. For some years the public school system of Ontario, as a whole, has been in an unsatisfactory condition. We in Ontario have not made the advance in this matter that we should have. In years gone by we were wont to point with pride to our system, but I fear that when we compare it with that of some of the European countries we can only

conclude that there is much room for improvement on our part. We are informed that the present policy of the government is to improve the efficiency of our schools along three lines, the suitability of the accommodations and the equipment, the qualifications of the teachers, and the salaries paid them. Then let us accept the invitation of the minister of education, and at this convention freely offer suggestions, and after fully considering the same, hand over to him any suggestions we think will assist him in increasing the efficiency of our schools.

The chief aim of our Public Schools has been to get pupils through the entrance examinations, and in the High Schools to pass them on to the University, and so our system has headed towards the professions. The idea of a broader education which will make our farmers' sons intelligent, prosperous and contented farmers; our mechanics men who have been so educated that they can produce work of the very highest order, and our daughters women who have an intelligent grasp of household duties, seems to be just dawning upon us. Our education should aim at producing men and women of the highest type, and not at the low ideal of passing written examinations. We, as trustees, have duties to perform if an education suited to the needs of the twentieth century is to be given to Ontario boys and girls. It will not do for us to fold our arms and look at the Educational Department, or to the teachers. I believe that a great part of the responsibility for the conditions of our schools at the present time rests on the shoulders of the trustees.

I think it would be well for us to ascertain what our duties are; then let us, like men, put our shoulders to the wheel and do our part to lift our schools out of the rut into which they have run.

One of the first things we should do is to provide good buildings, properly heated and ventilated, with all requisite equipment for the work to be done there, and some pictures of an educational character for the walls and corridors. Part of the grounds should be reserved for lawn, with flowers, ornamental trees and shrubs. In rural schools, the school garden should not be wanting, but I am afraid there is a very serious lack of teachers in these schools who are qualified to properly direct this work. This defect should be remedied as early as possible.

Next we should select our teacher, and we should not advertise "state salary." The selection of the teacher is the most important part of the trustee's duty. We should not select the cheapest, but the best. A poor teacher is dear if he works for

nothing. He should produce a medical certificate that he is free from tubercular troubles of every sort. In ungraded schools men should be employed, not boys or girls, but men of experience, good judgment and strong character. Not every one realizes the influence of the teacher upon the character of the pupil. Lady teachers frequently produce effeminate men. In graded schools a large percentage of men should be employed.

After a teacher is selected, we should see that his remuneration is sufficient to at least enable him to live comfortably, get some good books, and make provision for old age. Unless this is done, the government may go on to the end of time passing acts and making regulations, and we will still have inferior schools. In Germany salaries of teachers are from 1,500 to 3,700 marks (\$375 to \$925), \$120 allowed for rent; pensions after forty years of age. The great need of our schools to-day is teachers, men of energy, ability and experience, who will devote their whole lives to education, and these we cannot have at what we are now paying. Unless the salaries are very materially increased the government should provide a pension fund for aged teachers. It is impossible for a man to devote himself fully to a profession which makes but meagre provision for him in his best days, and nothing for his declining years. I am informed that there is not a male student in either the Toronto or Ottawa Normal Schools, and some of the best men who are in the profession are leaving rapidly. Let us ascertain the highest salaries we can pay, and when we advertise let us state it, and from the applicants select the best.

Our duty does not cease when we have provided good schools and good teachers with respectable salaries. We should visit the schools and show teachers, pupils and parents that we are interested in what is being done. If we are to be of real help in the cause of education we should become as well informed as possible in the newer ideas as advocated by our leading educationists, and so to assist the teacher in introducing modern ideas and methods. The stage-coach has given place to the steam railway; the tallow candle to the electric light; the sailing vessel to the steamer, and equally great advances have been made in educational lines, but we are not reaping the benefits of these as we should. This is largely because we have not been properly informed, and have been satisfied with the services of inferior and inexperienced teachers, instead of men of good ability who make the education of the child their life study.

No doubt you have all read an account of a widely representative meeting recently held in this city, at which the following resolution was passed: "Owing to the dishonesty in business and political life, the conscience being so elastic that it is satisfied with stealing as long as it is legal and the law cannot take hold of them, it is necessary through the public schools to inspire in the minds of the children a reverence for religious things, and especially to give them clear moral ideas and strong convictions as to matters of right and wrong." In reference to this I beg to repeat what Inspector Collins said in his able papers, read before the association last year: "I would have taught in the schools the word of God. The formation of character is the most important element of education, and the Bible is the foundation of character." Hitherto this has been kept off our curriculum, because of denominational differences, and because of want of consideration for others on the part of those who advocated it, but this body of men before me can accomplish this most worthy object, because they can approach it in a business-like way. Let the government appoint a committee of men from all Christian denominations to prepare a series of lessons to be read from the Bible, and a small text book of questions and answers upon the lessons read. The objections made against introducing the Bible are more imaginary than real. When the Bible or the New Testament used to be in every public school there was not an objection heard. The Bible has gone out of our schools through neglect, being crowded out by the continued additions to the curriculum." Without doubt, one of the great dangers threatening the welfare of our great young country to-day is that form of dishonesty commonly known as "graft." In one way or another in politics, in commerce, in finance, particularly in the construction of works under contract, this form of theft has grown all too prevalent. Here and there men of rigorous candor are doing what they can by both precept and striking example to stem the tide of pollution, but ever and again their insufficiency for their colossal task is made painfully clear. What can we expect of greatness in Canada's future without cleanness in the moral life of her average citizen, and what more effective agency can we enlist in the effort to procure that necessary condition than the Public Schools. The learning of many other things is good, but the establishment in the men and women of to-morrow of high and sacred honor, impregnable virtue, is of the very first necessity. The one invaluable asset of a nation is its citizens of unblemished

character, which is founded in right habits of thought and action. This implies training and this training should be the very breath of life to all the work of every school in the land. The trustees are responsible for the education of the child who leaves school at fourteen years of age. The school trustee is the representative of the people, charged with the education of their youth, and this responsibility is a serious one, for nothing is so disastrous to a people as poorly educated manhood and womanhood.

In some of the schools, returns are made of all the persons between the ages of five and twenty-one, resident in the community, and those who are enrolled as scholars; so it is evident that there is some responsibility for the education of all classes between these ages. There is evidence to show that many parents do not appreciate the value of education for their children; the result is that they take them away from school so soon as they may, at the age of fourteen and make wage earners of them in store and factory. Though there is a small percentage of those thus leaving school entering the trades, yet the trades demand that a boy or girl begin his apprenticeship early, not later than sixteen or seventeen; the effect of this is, that the majority of our young people between the ages of fourteen and twenty-one have no opportunity, according to our present system of education, to continue their studies. And there is no chance for our industrial producers to acquire a knowledge of the principles of their work, they have only a knowledge of the process. We make provision for the education of our professional people, for our civil, mechanical, electrical and mining engineers, and for the farmer, but there has been scarcely any consideration of the educational needs of our industrial producer. Technical education began when it was realized that no nation could excel as manufacturers unless her workmen were educated and trained. The result of technical education in Europe aroused the English people, who to-day have their evening technical schools more systematically organized than any other nation in the world. To-day the training of their work-people consists of: (1) The elementary schools. (2) The practical work in the factory. (3) Evening technical instruction. The middle and laboring classes have a right to claim such schools for their use as corresponding to schools of Agricultural, Science, Medicine, etc., at present maintained by the people. The only places for our young men to spend their evenings in some towns are the public reading rooms, hotels and billiard rooms, and in some larger towns, the Y. M. C. A. It is in the interest of the mechanic and clerk to

acquire a knowledge of the theory and principles of the work they perform, as well as of the processes of it, for in the changed conditions of production by steam and electric power men are often monotonously at work producing one part of one thing while having little or no knowledge of the various operations needed to complete the article. The only way to get a knowledge of the finished product is at the evening technical school. Moreover, it is in the interests of the manufacturers. The intelligent workman turns out better work; raise the standard of the workman and you improve the standard of the product. Further, suggestions which improve the quality and reduce the cost of production come from intelligent and trained men. Dr. Josiah Strong says: "Capital and labor are related to each other as the wings of a bird. It is when these wings co-operate that the bird rises heavenward; but slip one of those wings and your bird falls helpless to the ground. Industry is borne up by these two wings, capital and labor. Clip either one and industry is crippled. They must move together before industry rises prosperously." The Bell Piano and Organ Co., of Guelph, gives rewards for the best suggestions. The National Cash Register Co., of Dayton, Ohio, accept only high school graduates for office departments, and about three hundred of their employees are studying in the night schools. In modern up-to-date factories, education, character and training are the most important elements in determining the value of labor. Employers now recognize that their employees are men and women with souls, not merely implements for making money, and employees must be educated so as to fill the bill or produce the goods. If it is in the interests of the workmen to know, it is in the masters' interests to encourage educational knowledge, which is a power of greater value than Niagara. Premier Gouin, of Quebec, the other day said in Montreal, "During the last fifteen years British exports increased 26 per cent., those of France increased 27 per cent. In Belgium, the country in which commercial education is exuberant it amounted up to 52 per cent. In Germany, the country par excellence as to technical education, to 71 per cent.." "Will this education be appreciated?" is a frequent question. Every normal young person has a brain and body quivering with natural activity, with vitality that must have some outlet. He is a worker and an investigator. If this life has no right outlets, it is pretty sure to find wrong ones. If he cannot be directed to examine and investigate along useful lines he is apt to find vicious enterprises. His energy must have expression, either in

useful or destructive work. It is pleasant to contemplate the facts that all efforts in this direction have been successful and appreciated by our young people. The experience of Qunter Hogg, the Philanthropist in the city of Old London is characteristic. His early evangelistic efforts widened into an educational institution, with classes for the serious study of Science, Art and Literature. He had his building in Regent Square, with gymnasium, library, reading circles, laboratories for chemistry and physics, conversation and debating clubs, etc. He wished to make it a place that should recognize that God had given man more than one side of his nature, and where he may gratify any reasonable taste—athletic, intellectual, social and religious. In the year 1900 the total attendance at this institution, known now as the Polytechnic, was 15,000.

At the present time our existing system of education is undergoing reconstruction in this direction. In the country there is a movement to make the continuation classes more practical, with more thought of the life work of the members of the classes. In towns we have our commercial, manual training and domestic science classes, a sort of continuation of the principle of kindergarten. The equipments of the day schools might be available for the evening classes. All laboratories should be called into service.

At the present time excellent systems of evening continuation classes for those leaving school before or after fourteen years of age are in existence in Europe and Britain with most satisfactory results. President Roosevelt, in his last message to congress, points out that industrial education is a matter of national concern. "It should be one of our prime objects as a nation, so far as feasible, constantly to work towards putting the mechanic, the wage-earner who works with his hands, on a higher plane of efficiency, and reward so as to increase his effectiveness in the economic world, and the dignity, the remuneration and the power of his position in the social world. Unfortunately, at present the effect of some of the work in the Public Schools is in the exactly opposite direction. If boys and girls are trained merely in the literary accomplishments, to the exclusion of industrial, manual and technical training, the tendency is to unfit them for industrial work, and to make them reluctant to go into it. The skilled mechanic, the skilled workman, can best become such by technical, industrial education."

In international rivalry this country needs not to fear the competition of pauper labor as much as it has to fear the edu-

cated labor of specially trained competitors. However, I should say, in closing, that technical education does not consist solely of instructions in the handicrafts or arts, but rather the education necessary to enable a boy to become an intelligent workman—one who can see the principles underlying the methods of work, or who can give a reason for doing anything in a certain way, and does not blindly follow a certain rule just because he was so taught. In fact, he should know something of the science of his art, for every art is based on certain scientific principles.

The trustee must lead in this movement for social and industrial betterment.

Again, gentlemen, I thank you for the honor you have done me by electing me your president for the year 1907.

CAPITAL OUTLAY ON HIGH SCHOOLS.

THOMAS G. WALLACE, M.A.

The subject of education, in all its phases, is one of the most important questions that can occupy the attention of the citizens of a free State. Education is necessary to civilization and progress, and the more highly advanced a nation becomes the greater becomes its responsibility in this respect to the rising generation. An educated people is a great national asset, and year by year, as the standard is raised, as the sum total of human knowledge is increased, the difficulties (both mental and financial) of attaining an up-to-date education are correspondingly greater.

We are concerned in this paper with a particular phase of the financial side of the education question—"Capital Outlay on High Schools. How far does the financial responsibility of the State extend in the education of the young? It is agreed that the State owes to the child an elementary education, that the financial responsibility of building, equipping and carrying on public schools should not be left to private enterprise (as in the olden days), but should fall upon the community—in other words, it is an accepted principle that primary education should be free and compulsory. In carrying out this principle a simple and fair method is adopted. The country is divided up into school sections, each financially responsible in all respects for its own Public School. It is also agreed that the onus of building and equipping secondary schools should not be left to private effort, but should fall upon the community. The question to-day is to discuss, and if possible decide, upon what constituency this financial responsibility should fall—the responsibility of capital outlay in building and equipping High Schools.

This is a subject that is beset with difficulties. The average citizen is not inclined to quarrel with abstract theories about education, but the moment you talk of touching his pocket the matter becomes serious. This is chiefly an affair of the pocket. It is necessary to frequently repeat that no money is more economically spent than that which is spent on the improvement

of education. We hope that, as time goes on, this view will take greater and ever greater hold of the trustees and ratepayers of the Province and the Dominion. The bitter opposition, for instance, to the recent Provincial Act tending to increase the salaries of Public School teachers almost makes one despair, and would seem to lend support to the view that the rural sections of this Province, to some extent at least, are out of touch with the progressive movement of civilization. This opposition, however, exists as a fact, and has to be reckoned with; and neither legislators, nor we of the Educational Association, in discussing the problems of education, should overlook the fact that this spirit pervades the attitude of the majority of the people towards all educational matters, especially in their financial bearings.

Schools, let us remember, are not to be judged by mere financial returns—their service to the State, like the service of religion, is of far higher and purer order. Their returns are not to be computed in rate per cent. Yet the High Schools do offer some financial return. They tend to multiply the number, and perhaps to reduce the cost of teachers in the rural communities. This will naturally appeal strongly to rural sections! The High School helps a class that most requires its help, viz., the poor man. Those who are wealthy, or even comparatively well-off, can afford to send their children to larger centres at a distance, but the poor man must have his secondary school within cheap and easy reach, or not at all. The High School is a necessary stage (under existing conditions) towards College and University life, towards professions, and, indeed, more largely than at first sight seems, towards business and trade; and if a course in agriculture is added, as expected, the usefulness of the High School to farmers will be greatly increased. The High School is helpful toward developing intelligent and well-equipped citizens all over the Province, but it is not necessary to enlarge upon the advantages of High Schools. Granted the usefulness, the necessity, of High Schools, our concern is for their construction and equipment.

On whom, then, shall be laid the responsibility for building and equipment? The natural, fair, and obvious answer to this question is that the onus of capital outlay should fall on the constituency served by each individual school. Under the present system the whole of the cost of erection and equipment of High

Schools, and more than its share of maintenance* falls (with very few exceptions), on the town or village in which the High School is situated. Now, the first thing that forcibly strikes any one who examines the existing condition of things is that a High School appeals (except in the case of the larger cities which are self-contained) to a much more extensive constituency than that included in the town or village. There is not a High School in the Province, if we except the larger cities, which has not a large outside attendance for which it is compelled to provide accommodation. That outside attendance would average over the Province 40 or more nearly 50 per cent. of total attendance, and it is on the increase. These pupils come in by walking or driving or in some cases by rail; and the great impetus recently given to the building of electric roads in many parts of the province will bring the country into closer contact with the town. Of course the maintenance of all country pupils is provided for under the present High School Act, and why should not these pupils, or the constituency which they represent, be assessed for capital expenditure as well? The High School has ceased to be a municipal institution alone, it is a county institution, and increasingly so, and it is so assumed to be in the High School Act. The attendance of country pupils is not a mere matter of chance, it is not spasmodic and uncertain, but preserves a fairly steady ratio all over the Province (30 per cent. to 50 per cent. or more). The farmers are becoming wealthy—a good sign of prosperity; they are building splendid houses and barns, and laying out grounds, and are seeking for their children equal if not better educational advantages with those who live in urban districts. The High School is just as necessary to the country as to the town, in fact it would almost seem to be becoming more necessary. Therefore the financial responsibility towards it, not only for maintenance but also for capital outlay and permanent improvement, should be spread over the whole constituency for which it provides instruction. As a matter of fact, making municipal boundaries serve as the boundaries of High School districts (except of course in large cities) is an artificial and arbitrary procedure. The advantages of High Schools are not like those of sidewalks or electric light, they do not stop at an imaginary line which separates town from township, a magic line whose chief virtue is its influ-

* For the town pays its share of county maintenance in the county rate.

ence on rates and taxes. In education, as in other things, it should be an acknowledged principle that a share in the privileges involves a share in the responsibilities. It would seem, then, as a matter of simple fairness that adjoining villages, or townships, or the County Council, should share with High School towns the financial burden of erection and equipment, as well as maintenance.

It is said that a town receives certain advantages over and above the surrounding country through the possession of a High School. Many of these advantages are independent of the High School, and some are shared equally with the neighborhood. It is said, *e.g.*, that a High School brings to a town people who would not otherwise come. It is very difficult to estimate the value of this statement; on the whole I am inclined to discount it. The town will naturally form a gravitation point, a centre of population, a purchasing centre, for the surrounding country. And the advantage to the town of incoming pupils may be easily balanced by the advantage to rural pupils through the proximity of the High School to their homes. This advantage is insignificant compensation to the town in return for capital expenditure, and permanent improvements; and after all it is a miserable argument to apply to such a subject. Or the High School building may be said, for instance, to be a town or village asset. It is sometimes a handsome addition to the town buildings (more often not), and the people of the town, it is said, have as a return for their expenditure the right, it may be the pride of ownership. If I mistake not, that is a right, a source of pride, which townsfolk will gladly share with their friends in the country. In the same way county buildings may be located in the county town, and remain the property of the county at large. As a matter of fact, many of the advantages predicated of the town in connection with the presence of a High School may be equally true—within certain limitations—of the surrounding district.

In all the instances of building or enlarging High Schools that have recently come within the range of my observation one of the main reasons urged for new or increased accommodation has been the increased attendance of county pupils. In the school represented by me the growth has been from 33 per cent. in 1898, to 47 per cent. in 1906. This, I think, is typical. High School towns are compelled to provide accommodation and equip-

ment for their outside pupils without one cent from outside sources toward the capital outlay. At the same time it must be remembered that the towns are responsible for building, equipping and maintaining Public Schools as well as the country, and the taxation in towns is as a rule many times higher than in the surrounding township. It is a fair principle which asserts that the burden of building and equipping High Schools should not be confined in an arbitrary and unreasonable way, but should be shared by all those who receive the benefits.

As a matter of fact this question has come to the front, and is pressing for settlement, not only because of the increasing interest of rural sections in secondary education, better means of transit, and as a consequence the increasing attendance of county pupils, but also because of the greater demands made by education to-day. Buildings have to be enlarged, owing to the greater number of pupils attending, and equipment is far more costly owing to the higher standard of educational requirements—a standard whose demands (in the person of the High School Inspector) are increasing all the time. What would be satisfactory fifty or even twenty-five years ago is crude, and out-of-date to-day. It follows as a consequence that, where the municipality is small, the cause of secondary education is handicapped. Ontario is a Province of small urban municipalities—38 per cent. of High Schools and Collegiate Institutes are in towns of less than 2,000 population, and 53 per cent. High Schools (exclusive of Collegiate Institutes) are in towns of 2,000 and under*. Take a town of say, 2,000 inhabitants, a very common instance. It has no very rich men, wealth is fairly equally distributed, and an increase of school rate is felt over the whole community. How can such a town afford to incur the expenditure necessary to build and equip a first-class up-to-date High School in addition to the expense of its Public School? How much more satisfactorily such a town could approach the problem of building its school if it had its proper proportion of help from outside sources? The pupils of such a town and district (and how common the instance is) cannot have the best, they are handicapped by lack of equipment,

* Forty-two Collegiate Institutes in Ontario, all but two in towns over 2000. Ninety-six High Schools in Ontario: 51 in towns and villages of 2000 and under; 32 in towns of 2000 to 5000. Therefore 38 per cent. of Collegiate Institutes and High Schools in towns of 2000 and under; 53 per cent. of High Schools in towns of 2000 and under.

and by antiquated apparatus, they are left behind in the great competitive race that is going on, not only between themselves and pupils from other more favored centres in Canada, but between Canada and the United States, between ourselves and Germany, or other industrial nations that are spending so freely upon the education of the young in order to wrest from the British people their commercial supremacy in the markets of the world. Gentlemen, municipal control in secondary education, especially in small municipalities, is only one stage better than the old system of private effort. Secondary education is too important a thing to be left so largely at the mercy of local prejudice and financial capability. Poor buildings and imperfect equipment are sometimes due to stinginess, and lack of public spirit, but sometimes due to lack of means. The larger the population the easier the individual burden, and the greater is the total expenditure possible. Privileges in all localities should be more equalized, and centralized. The only possible relief to such a situation (under existing circumstances) is to enlarge the area of financial responsibility, and in that way to increase the resources of the school and make better equipment possible. The Public School Section includes the whole district for which the school provides elementary education, and upon that section falls the responsibility of capital outlay as well as maintenance. The whole section is not equi-distant from the school, but all pay the same rate—those two miles away as well as those on the next lot, and even the man who boards the teacher pays the same proportion as the rest (not more) because it is supposed that he gives value for value received.

High Schools originally built for local needs, and used mostly in days past by the towns by which they were built, are to-day county institutions. The towns are compelled, under existing legislation, to provide accommodation for all comers. The result is that all over the Province additions have been, and are being, made to present buildings, and new buildings have been, or have to be erected, and the towns have to incur increased capital expenditure, and add to their municipal debts (in some cases already perilously high), and all this under conditions that, I feel sure, were not foreseen, and for that reason are not provided for under existing legislation. This is undoubtedly a hardship and a grievance and should be rectified.

The enlargement of High School districts has been suggested, but such a scheme will scarcely, under existing circumstances, afford a satisfactory solution of the difficulty. It would not be easy to apply with exactness the principle of the Public School Section to High Schools. Their boundaries would be much larger and much more difficult to determine. To bound the actual sphere of influence of a High School (outside of large cities) would not be an easy task, would be scarcely possible, and, moreover, the ratepayers of the proposed added districts would not allow an increased liability to be placed upon them without protest. It would be impossible to persuade legislators, with the rural vote hanging over their heads, to enact such a measure. The proposal to enlarge High School districts may be set aside as impracticable. A further objection to this proposal is that it is not in harmony with the principles of existing High School legislation.

The most evident way out of the difficulty, the most practicable, and the most satisfactory, would seem to be through the County Councils. At present they are represented on the High School Boards, and under existing legislation have a direct relationship with the Boards. They are the representatives of the rural or county pupils. They pay their share of maintenance based on the proportion of county pupils attending each High School. Why not apply the same principle to expenditure for capital outlay and permanent improvements as to expenditure for maintenance? Let the county pay its proportion of capital outlay in proportion to the average attendance of rural pupils for, say, three or more years previous. Of this sum the town pays its share in the county assessment, and this share in larger urban municipalities is quite appreciable, *e.g.*, in such a town as Galt it amounts to one-seventh; and in addition to representation on High School Boards the County Councils should be allowed, under this scheme, to assume their share of ownership in the fabric and equipment of High Schools. Of course under such a scheme as this the County Council would have to be consulted as to the need of enlargement. It would be the duty of the High School Board to lay its case before the county, showing the need of further capital outlay and the percentage of county pupils attending, in order to enlist their aid. In the event of the County Council refusing to grant the demands of the School

Board, the Board should necessarily be relieved of all further responsibility towards county pupils, and the onus of providing for these should lie with the council. This seems to be a necessary alternative though it involves (if carried out) the establishment of new High Schools. The undue multiplication of High Schools would be an evil, and would lead to the weakening rather than the strengthening of these institutions, for the Province is already fairly well supplied with them. In the event of the refusal of the County Council to recognize its liability, it has been suggested (and the suggestion seems to be an excellent one) that the matter should be referable for decision to the High School Inspector for the time being, or better to a board of three, consisting of the Superintendent of Education and the two High School Inspectors (acting in advisory capacity to the Minister of Education). In dealing with this problem the policy of the Government should not ignore the vested interests of existing High Schools. The policy of centralization must prevail to some extent in secondary education. Let not the number of High Schools become unduly large, lest the individual school be weakened, and secondary education suffer thereby. This principle will apply to the proposed establishment of so-called "Township High Schools," and the multiplication of continuation classes. Most of the schools in the Province have already been obliged to expend large sums in building and equipping additional rooms to accommodate the county pupils, and it would be a pity and unfair, by one stroke of the pen, to throw all this increased accommodation back upon the boards and draw off the attendance for which by Act of the Legislature they had been obliged to provide. Under such a policy all this expenditure would be rendered nugatory. Conditions must be accepted as they are, and any further legislation must be grafted on existing Acts, for lack of continuity in educational policy must have a disturbing and injurious effect. The settlement of the difficulty that is most in harmony with existing legislation, most easy of accomplishment, and most likely to prove successful in the working out, is the extension of the liability of the County Councils to capital outlay and permanent improvements, and in the same proportion as maintenance. Let the motto of the counties be, "Pay for what you get."

Since this paper was drafted a bill embodying the principle

herein enunciated has been brought before the Ontario Legislature by Mr. T. W. M'Garry, of the County of Renfrew. The Bill follows the present High School Act as far as possible, and provides for payment by the County Council of a just proportion (based on attendance of County pupils, as in maintenance) of the capital expenditure and of cost of permanent improvements. It also provides that the County Council shall pay to the School Board in thirty annual payments a proportion of the present valuation of land, buildings, and equipment with interest at $4\frac{1}{2}$ per cent., this proportion to be based as before on the average attendance of county pupils for the preceding three years. The Bill also enacts that the trustees shall hold the school property in trust for the county in proportion to the amount contributed. An alternative suggestion is made, viz., payment of rental at 6 per cent. on share of capital by County Council. Mr. M'Garry supports his contentions by figures. He gives the expenditures thrust from time to time upon Renfrew High School by the increasing county attendance (at present 47 per cent.), and the whole of this capital outlay has fallen upon the municipality of Renfrew alone. This is the story told all over the Province. In Oakville where the attendance of county pupils has increased from 33.63 in 1898 to 47 in 1906, a by-law was submitted on March 25, 1907, for \$15,000 to provide enlarged High School accommodation, and all this capital expense falls upon the town (pop. 1,750) though it provides little better than half the pupils. In Galt we have a peculiarly aggravated case, because there are several smaller villages and a thickly populated country immediately surrounding the town. These have the full benefit of the Galt Collegiate Institute without any liability towards capital outlay. Recently the people of Galt had to vote \$65,000 without any assistance from the County, though more than one-third (36 per cent.) of the pupils were County pupils (a proportion very likely since increased), and though the town of Galt contributes as its share about one-seventh of the County's share of maintenance. In Markham, I understand the attendance of county pupils is as high as 80 per cent. The difficulty of the situation is growing, and clamors for relief.

As a matter of fact County Councils should be far more generous to the cause of higher education. They have already the power to make voluntary grants to capital expense of High Schools, and this power should be more largely used than it is.

(Ch. 293, Sec. 36., R.S.O.). In England we read of the generous attitude of the County Councils in voting scholarships and giving large grants even to University Colleges—such as at Leeds and Manchester, etc. This is something worthy of imitation. If instead of wasting our energy introducing American educational fads and experiments which only survive a few years before they are cast aside to make room for some new craze—if, instead of doing so much talking, we would treat education as a serious subject, as a matter of life and death to the nation, if we would set before ourselves a higher standard of generosity towards secondary Education, and do battle with the existing spirit of stinginess on the part of the public, much more effective work would be accomplished, and the progress of the nation would be assured. Wherever there is no financial return the average man often asks, not how much, but how little will I give—a mere question of moral or spiritual progress does not weigh with him. But this spirit is by no means universal, and there are counties of Ontario that are generous towards higher education, and afford bright and conspicuous examples to all the rest.

Wellington, \$300; site for Elora.

Victoria, \$500, rebuilding, Omemee.

Elgin, \$1,300; three small schools.

Essex, \$1,700; two small schools.

Grey, \$1,000; equipment, Owen Sound.

Dufferin, \$2,500; erection and equipment.

Peel, \$5,800; erection, Brampton, permanent improvement.

Kent, \$10,000; building, Chatham and Ridgetown.

Prescott and Russell, \$13,667; five special grants (1900).

Prince Edward, \$15,000; erection, Picton.

We hope that these ten instances will be greatly multiplied within the next few years, and that the County Councils will take a larger share in promoting higher education throughout the Province by assisting High Schools, by providing scholarships not only in schools through the county, but also in University Colleges. This is just as laudable as offering prizes for hens, flowers and sheep. This Association, so representative in character, can do a great deal towards forming a better public opinion on this subject. Our legislators, in council and legislature, should be leaders, not followers, of public opinion. They should not merely beat time, but should be pioneers in all laudable enterprises for the true advancement of the people.

REVIEW AND SUGGESTION.

R. S. NEVILLE.

When the war of independence was over, ten thousand Loyalists laborously set their faces towards the wilderness which afterwards became Upper Canada. They were not a rough and rude people, but were educated in good schools, established by their British forefathers. Some had a classical education, but with their property they left their schools behind. They found it necessary to fell the trees, build their log homes, sow their little patches as they cleared them and reap sustenance from the ground they conquered. When they had advanced thus far and protected themselves, to some extent, from the weather and from hunger and the hungry wolves, their next thought was the education of their children. Teaching in the home was soon supplemented by private schools, the first, I believe, being established by Rev. Dr. Stuart, at Cataraqui, now Kingston. He was an Episcopalian clergyman who had been a missionary to the Indians in the Mohawk Valley for about seven years. He was a man of splendid stature and character, kept probably by his calling from bearing arms in the war, but every inch a Loyalist. His church was seized and turned into a tavern and afterwards into a stable. He himself was taken prisoner but was afterwards exchanged for an officer, and found his way to Canada.

Dr. Stuart's school at Cataraqui was opened in 1786, only three years after the treaty of peace. Other private schools followed, and were scattered throughout the various settlements, but a movement soon set in for the public support of schools, and in 1789 a Memorial was presented to the Governor-General of British North America, lamenting the lack of both religious and secular education and requesting his lordship to establish a respectable seminary at Kingston. The Governor-General gave instructions to have suitable lands set apart for the support of schools, but before effective results were achieved the Constitutional Act of 1791 divided the country into two provinces, and Upper Canada was given a separate government. The new Legislature took the subject up at an early date and by an address to the Imperial Government requested His Majesty to direct that

a portion of the Crown Lands should be set aside for educational purposes, the proceeds to be employed to erect and endow a Grammar School in each of the four districts into which the Province was divided, and to found a college or university. A large Royal grant was made, which afterwards formed the financial basis for the Royal Grammar School, the Central School of Upper Canada, Upper Canada College and Toronto University. But for the time being cheap land was plentiful, and it was found little could be done in this way for education till population increased and lands appreciated in value.

Private schools, however, increased in number and the United Empire Loyalists established schools of a superior class in the centres of all their settlements. One of the first laws regulating the schools (1799) prohibited any person from teaching in the schools of the Province without first passing an examination by one of the commissioners, and obtaining a certificate of qualification as tutor. The test was not wholly educational. One object was to keep out United States teachers lest they should instil in the tender minds of the youth Republican principles and disloyal ideas.

FAMOUS EARLY SCHOOLS.

Some of the early schools have become historic, *e.g.*, Bishop Strachan's schools, first at Kingston, then at Cornwall and afterwards at York; the Academy at Bath in Ernesttown, where Marshall Spring Bidwell, afterwards prominent in public affairs and Speaker of the House of Assembly, was educated; the Newburg Academy, with which Dr. Nelles, afterwards the distinguished principal of Victoria College, was connected; the London District School, which had as teacher the late Rev. Dr. Ryerson, afterwards General Superintendent of Education; the Grantham Academy at St. Catharines, the land for which was donated by Hon. William Hamilton Merrit, who afterwards (1849-50) introduced the Act to endow the Public Schools with one million acres of land.

FIRST SCHOOLS ESTABLISHED BY LEGISLATURE.

But in the earlier times the increase in the value of the school lands was too slow for the needs of education, and in 1807 the District Grammar Schools were established by authority of the

Legislature, followed in 1816-20 by the Township Common Schools. In the twenties a Board for the General Superintendence of Education was established, and an effort was made to introduce uniformity of system in the schools. Thus it will be seen that with scant resources and even during troublous times before and during the War of 1812-14, and afterwards while its effects still remained, our forefathers never forgot the interests of education. It was in fact their chief concern along with their religion and their flag.

CROWN RESERVES EXCHANGED FOR SCHOOL LANDS.

Two-sevenths of the land in settled townships had been reserved, one-seventh as Clergy Reserves, the other seventh as Crown Reserves. Outlying school lands did not sell rapidly enough to produce the funds required for the university, so a scheme was put through to exchange school lands for an equal acreage of Crown Reserves which were so situated as to be valuable and salable. Then Dr. Strachan went to England with the hearty endorsement of the Governor, and obtained the Royal Charter for King's College, now Toronto University. This was claimed to be the most liberal charter in the Empire, but it did not satisfy the religious views of all classes, and a struggle ensued which caused much delay; and in the meantime, by way of compromise, Upper Canada College was founded (1830), the Royal Grammar School being merged. The College was required to perform the double duty of a superior grammar school and a temporary university.

FOUNDATION OF OUR MODERN SCHOOL SYSTEM.

When the troubles of the thirties were over education took on a new lease of life, even before the Act uniting the Provinces, as the School Act and the Legislative proceedings of 1839 testify; and after the Act of Union serious efforts were continuous. The School Act of 1841 was practically a failure, but the cause of education in that year and the following was advanced by the opening of Victoria College and Queen's College. In 1843 the university was opened at Toronto, and another Common School Act was passed; and in the following year (1844) Rev. Dr. Ryerson received his appointment as General Superintendent of Edu-

cation, and immediately set out to establish as perfect a system of education as the experience of the time could produce. He visited the British Isles and Europe as well as the Eastern States, and studied long and deeply the merits of the different systems. His elaborate report was followed by the Act of 1846, which is the foundation of our present provincial system of Common or Public Schools. Improvements have been made from time to time, and are yet sadly needed. Indeed the needs advance with the times, and unless our schools are carefully and constantly improved we shall fall behind in the competitive race with other educational systems.

Now, when I come to our present school system and school laws, I find myself a trespasser upon fields fully occupied by the excellent works of the late Deputy Minister of Education, and the solicitor for the Toronto Board of Education.

When I turn to a wider field, I find it also fully occupied by the Chief Inspector of Toronto Public Schools, whose voluminous book covers education and educational systems throughout the civilized world.

These works are accessible and no doubt familiar to you all, and it would be useless for me to repeat any part of what they have written. I shall therefore only pick up a few odds and ends, and then I crave your permission to make a few suggestions.

INDIAN SCHOOLS.

I may mention first the Indians. The Six Nation Indians fought loyally for the British cause in the War of the Revolution, and like the United Empire Loyalists trekked to Canada when the war was over. They were led by the famous Chief Brant, himself an educated man, and settled mostly on the Grand River on land given them by the Government, one tribe, however, going to the Bay of Quinte district. These Indians, as well as the other Canadian Indians, are wards of the Dominion Government, and their education does not come under the Provincial system. There are throughout Canada 301 Indian Schools in operation, consisting of day, boarding and industrial schools. The day schools are provided under treaty obligation; the boarding and industrial schools are not. I am glad to say that there are now no treaty Indians who are not within reach of the schools.

Of these Indian schools there are in Ontario 76 day, 1 board-

ing and 5 industrial schools, total 82; 10 of these are Methodists, 11 Church of England, 24 Roman Catholic and 37 undenominational.

In the unorganized territories of Canada there is no provision for education of either whites or Indians with the exception of subsidies given the mission schools.

PRESENT SCHOOL SYSTEM.

Then we have under Dominion jurisdiction the Royal Military College at Kingston, established to teach military science, and several Dominion experimental farms which are also educative in character; but speaking broadly, our system is provincial, not national. Under the British North America Act the Provinces are given exclusive jurisdiction in matters of education, subject to certain restrictions respecting dissentient denominational and Separate Schools. These Separate Schools are, however, within provincial jurisdiction and, subject to the restrictions referred to, are, in the main, governed similarly to the Public Schools. Even the qualification of teachers in the religious orders is now being placed upon the same basis as those of the Public Schools, as a result of the recent decision of the courts, though the Bill now before the House gives several years to fully carry out this object. The inspection of these schools is under Provincial control. So are the text-books, except those used in religious exercises.

In the formation of our Common or Public School system we have avoided the over centralization which obtains in France, where even the teachers are practically civil servants. We have not given the Government such complete control over all classes of schools as is possessed by the various Governments in Germany, but we took from the Germans the Kindergarten and the Normal Schools. Our system is not like England's, and yet in the matter of centralization we seem to be nearer the English system than most others; but the English have both denominational and undenominational public schools, a fact which is now giving no end of trouble to both people and Parliament, while our Public Schools are wholly undenominational. We took from the United States some democratic principles of local control and local taxation, and our first school books were Irish. So our system is about as well fathered as our mixed population. We took other's virtues, tried to avoid their errors, fitted the whole

to our municipal institutions and may fairly claim to have a system of our own. Yet we have to keep constant watch upon the progress of others, and keep emulating their virtues as well as adding to our own, or we shall inevitably fail to maintain an advanced position among school systems.

At first too strict a line was drawn between the different classes of schools, particularly between the Common and High Schools. We seemed afraid of overlapping, forgetting that most children do not reach any higher school than the Common. It was made too much a place of preparation for the High School instead of preparation for the work of life. That is being remedied by the introduction of continuation classes in rural parts where there are no High Schools, so that children may have the advantage of at least partial High School training, while remaining in the Common Schools. Special courses also have been and are being introduced more and more in both Primary and Secondary Schools, the better to fit the youth of the country for their various pursuits. A complete preparation, however, is continued in the lower schools for entrance into the higher, while the teachers of the lower schools are drawn from above. The whole system is essentially one with stopping places and special courses of study to suit the needs or desires of the pupils.

CREATION OF OFFICE OF MINISTER OF EDUCATION.

In 1876 the General Superintendent was superseded by a Minister of Education, and Rev. Dr. Ryerson, after serving for a generation, retired, having given our school system almost as high a reputation as he himself had acquired. Later the Department of Education was introduced, which has always been composed of the Executive Council of the Province, but may be only a committee of that body if thought desirable. Although the Executive Council and the Minister of Education are members of a party government, yet there are some questions including education which have no party complexion, and it has always been the declared aim of politicians to keep education out of politics. The Minister of Education, who is a member of the Government of the day, is able to explain on the floor of the House the reasons for departmental action and the needs of education, and thus aid the representatives of the people the better to understand and provide for educational requirements upon which the House has to pass.

OFFICE OF SUPERINTENDENT RESTORED.

But last year the Government decided to restore the office of Superintendent, and appoint to it an efficient educationist, who was not involved in the general government of the Province, and whose whole time and talents should be devoted to the cause of the schools. I am not as competent as you are to speak of the qualifications of Dr. Seath, who has been appointed to this high office, but I have been in sufficiently close touch with him since his appointment to be able to testify to his splendid ambition to have the schools of this Province second to none in the world. This is also the aim of the Minister and of the Department, and it was for this purpose that the office of Superintendent has been created.

ADVISORY COUNCIL.

Last year the Department of Education Act provided also for an Advisory Council of Education, representative of the universities, the inspectors, the various teaching bodies and the trustees of the schools. The Minister of Education has, therefore, now the advantage of formal consultation with a committee competent to express the authoritative views of practically all provincial educationists. The trustee section of this Association has the privilege of electing the trustees' representatives, and it is worthy of remark that they may do so in any manner they see fit while other bodies are required to follow prescribed rules in choosing their representatives.

The school laws are written and unwritten. The written are contained chiefly in the Statutes and the Regulations of the Department of Education. The unwritten are those directions, decisions and commands which are given from time to time as occasion requires by the Minister, the Superintendent, the Inspectors and the teachers upon matters left to their discretion. The written laws provide for the establishment of the schools, their general conduct and inspection, and for the qualifications of inspectors and teachers. They supply the machinery, but success can only be obtained in proportion to the co-operation and liberality of the public, especially in their character of taxpayers.

The basic principle underlying all these laws, and particularly those which make school attendance compulsory, is that the children are not the absolute property of the parents, but are the

great undeveloped asset of the State. The State encourages parental authority until its own interest demands that it should take partial control. Then it compels attendance at school, and gives to teachers parental powers. The paramount interest of the State requires that childhood should be developed into good citizenship.

It is plain, therefore, that as you get close to the pupil the importance of the work increases, and that that system will succeed best under which the best teachers are obtained. Good teachers must have natural adaptability, and must love their work, but the best cannot be had unless excellent training schools are provided and sufficient salaries paid to induce intelligent men and women to continue in the profession after they have acquired the invaluable qualification of experience. Provision is now being made for better training schools, and a strong effort to increase teachers' salaries, so that this object may be attained.

SUGGESTIONS.

I am desirous of utilizing the few minutes remaining at my command to make a few suggestions, for I know that I am addressing the leading citizens of many localities whose co-operation in the cause of education has been and is as necessary as it is cheerfully given.

TOWNSHIP BOARDS.

I am strongly inclined to the view that the rural schools would be better if Township Boards were generally established. In urban municipalities general boards give much better satisfaction than local boards for each ward or school, and in townships I believe broader views and more public spirit would prevail if a central body were established to govern the schools of a whole township. They could be elected by a general vote of the rate-payers, or the township could be divided and each division elect its own representative.

TECHNICAL SCHOOLS.

Of technical schools and special courses of study I refrain from speaking at length, because our friend Dr. Goggin is to give you an address on Technical Education, but let me remark that

the age of religious war is pretty well passed away, and it is to be hoped political wars will be less frequent in future, but that the age of industrial and commercial war is at hand, and is no less fierce. The nation best equipped with qualified citizens for commercial and industrial pursuits will as surely win as the nations with the best military armies have won in military wars. And as the regulation of trade and commerce is within the jurisdiction of the Dominion Government, let me suggest that a working arrangement should be made between the Dominion and the Provinces whereby the Dominion would give financial assistance for the necessary training of our youth in commercial and industrial lines. Perhaps, too, this additional common interest thus created between the Provinces would be another adhesive national influence.

CAPITAL AND LABOR.

But we have also sometimes domestic wars which very much retard progress in commercial and industrial lines. There is mutual distrust between capital and labor. It is so the world over, and it seems to me that education might produce at least a partial remedy. The boys and girls who will be the future employers and employees, especially in urban communities, might be taught the mutual interest and unavoidable inter-dependence of capital and labor, to the advantage of both, as well as to that of the country. Pupils might be taught the best results obtained from mutual co-operation of the two interests, and the stultifying effects of antagonism. If capital be tyrannical labor will be restive. The industrial machine will be put out of gear, resulting in great loss and much suffering and friction. But teaching in this respect might profitably be extended to adults, and I hope that Boards of Education in industrial centres will make this subject one of the first in the list of evening lectures to citizens at large, which will be authorized in a few days if the Bill now before the House becomes law.

CIVICS.

Then we ought not to forget that we live in an age and country in which the people rule. Our Government is really in the hands of its citizens, and the youth should be given a thorough

insight into the duties and privileges of citizenship. They should be given a course in civics. They should understand the system of government under which they are to live, the school system, the municipal system, the judicial system, the outlines of the Canadian Constitution, the simple divisions of authority between the Dominion and the Provinces, and a realization of the whole Imperial system.

POLITICAL MORALITY.

There are evils, too, in our politics which can only be eradicated by education. Boys should be taught the solemnity and responsibility of exercising the franchise, that all public men should be of the strictest honor and integrity, qualified intellectually and morally to execute the highest of trusts. We are sadly lacking in political morality. Men who in other walks of life can be trusted are politically dishonest because proper education in this regard is lacking. We must look after the children if we would have honest politicians. We must teach them the virtue of political honesty with as much assiduity as we teach them virtue in other walks of life. Our Parliament opens with prayer, but when the House is dissolved there is an unholy scramble for votes to be obtained by fair means or foul. It would be more to the purpose if we opened school every election day, or closed it the night before, with a special prayer for the country, for public men, for the voters and for the avoidance of political sin. Special lectures might be given. Pupils should be taught that the voters are the court of final appeal that settles the policy and destiny of the State. If the children were properly taught before they become voters our politics would soon be permeated with new ideals, and one would no more dare to offer a bribe to a voter than to a judge on the bench.

BROADEN THE VIEW.

Then I would take the pupil up into a high mountain and show him all the kingdoms of the world. I would not teach him that Canada is greater than the whole of them combined, and could possess them all if she would fall down and worship the devil of jingoism; but I would endeavor to show for what destiny Canada's resources and geographical position best fit her.

Let me illustrate the importance of geographical position generally from this Canadian view point.

Geographical position made possible the ancient civilizations and immense populations of China and India. It will account for the backward and barbarous condition of Central Asia and Africa. Then there is Siberia, that with her vast natural resources should be another Canada, were she not cut off from all the progressive peoples of the world by her situation and surroundings.

Turn to the Mediterranean. Geographical position made it the centre of the world for ages, and then it sank into an inconsequential pond because of geographical discoveries—America and the passage round the Cape of Good Hope. The centre of the world shifted to England, where it still remains, largely for geographical reasons, notwithstanding a partial revival of Mediterranean countries due to the Suez Canal.

Why do all the five British and the seven American cables across the Atlantic have their landings on both sides in British territory so that all their business passes through Canada? The map shows. A long cable cannot compete with a short one. A young child could appreciate that. One more advanced will understand when you tell him the speed of a cable is in inverse ratio to the square of the distance. Then show the pupil the map of the Pacific. We have the same advantages there. The cable from San Francisco to the Philippines is 6,912 miles long, and has several landing stations. Messages can then only reach Japan by going to the Asiatic mainland first, or by a branch line from Guam northward via Bonin.

Canada can build a cable with one span of half the distance to connect with the Japanese telegraph system, and serve all north Asia; so speedy and cheap in comparison that it will take all the North American business with that part of the world, now rising so rapidly in commercial and political importance.

We have the short steamship routes also; and for both communication and transportation the shortest and speediest route between Great Britain and Japan and North Asia lies through Canada. The only important part of the world not served by British cables is the Northern Pacific. We have the greatest interest in the development of commerce in all these regions. Here, then, is our opportunity. Here lies one of our great fields of activity and usefulness.

There is surely no teacher so incompetent as to be unable to impress on the average child's understanding important lessons from such simple geographical facts. If the Hudson Bay route proves a success and brings Saskatchewan as near Liverpool as New York, the lesson will be all the more emphatic.

INTERNATIONAL LEADERSHIP.

Take another view. This is a British Province, a British country. We are cultivating British sentiment. We are talking about the flag, about putting it upon our school houses and keeping it constantly before the eyes of the rising generation. This is in the highest degree commendable. But all Canadians are not of the British race, and we are getting an ever increasing stock of foreign blood. It is flowing into the east, the middle and the west. Not only do these foreigners need education, but our own children need to be taught the more material side of the value of British connection. We have been doing some things calculated to put a damper on our enthusiasm for the British idea. Books have been published and speeches made by even our public men in which the loudest note is one of complaint and grievance against England. I would teach the child the other side of the story, the material value of British connection, for the present, in the past and for the future. By lesson and lecture I would teach the children to "lift up their eyes and see," to look beyond their parish to the wider interest of the country, and even beyond that of the Empire—to the interest of the human race in maintaining British leadership among the nations of the world.

The British Empire is the greatest secular force for good that ever has existed in the history of the world. Let the pupils look on Great Britain as the mother of Parliaments, the mother of representative government, the mother of individual liberty, the mother of religious toleration, the unselfish mother of an untaxed Empire, the dispenser of equal justice to all classes, creeds and races, the exemplar of the world in matters of government.

Do you think the child cannot appreciate British services to mankind? Let us see how plain and simple they can be made to appear.

In teaching the history of the Napoleonic wars the child can be taught that less than one hundred years ago England saved the

national liberties of Europe. When the Napoleonic wars were over, the Holy Alliance was formed to maintain absolutism and among other things projected the re-subjugation of Spanish America, all the Americas south of the United States. England asked the United States to join with her to stop it. The American minister in London had no power to bind his government to such an agreement without express authority. Letters passed between the British Foreign Secretary, Mr. Canning, and the American Minister at London, Mr. Rush. They were forwarded to Washington for instructions. But there were no telegraphs or ocean greyhounds then. It required months to get a reply. In the meantime the project of the Alliance so far advanced that Canning decided not to wait, so on the responsibility of England alone he notified the Alliance, through the French Ambassador, that Great Britain would oppose their project with all her force, and with Trafalgar fresh in their minds they desisted.

The United States had not yet acquired all their western and southwestern territory, and had not yet attained to any high rank among the nations. They were wholly incapable of resisting the Holy Alliance, and England stood between the continents, guarding the safety of the Americas from that time on during all the years, while the Republic was rounding out her territory and growing to a position of power. As a result the military establishments of the Holy Alliance never were set up in America.

The proclamation of the Monroe Doctrine at this time was entirely the result of England's leadership, and was directed solely against the Holy Alliance. Its effectiveness was due to the British Navy. Had it not been for England the Americas would have been full, like Europe, of military encampments, and we would have been engulfed in the vortex of militarism. But now the Americas are free to work out their destinies as they will. The liberties of two more continents have been saved by England.

We go back to Europe. Russia has long wanted an Atlantic seaport. And she would long ago have passed over the prostrate form of Swedish and Norwegian nationality, but for England. It has been the policy of England to maintain these countries and Denmark and Holland from the aggression of Russia and Germany. By actual treaty she guarantees the integrity of Belgium. Since the Franco-Prussian war she has three times saved France

from another overthrow at the hands of Germany. Portugal is her oldest ally. By throwing the weight of her influence against aggression on either side she has been the arbiter of peace in Europe ever since the Triple and the Dual alliances were formed, and she is the supporting friend of all South Europe to-day while Russia is crippled. She took hold of Egypt when it was in disorder and bankrupt, financially, politically and morally, and has transformed Mummy-land into a permanent state of order and prosperity. She has kept Persia and Afghanistan from the Russ. She has given peace and quiet to India, and an opportunity to work out a better destiny if her people have the genius. She kept off the navies of Europe while Japan drove the Russians back and freed herself from prospective destruction, and as soon as the war was over she joined hands with Japan, and by treaty guaranteed the integrity of China. There is no civilized country on earth to-day that does not owe its political position largely to England; and with all this she has borne more than any other the "white man's burden" to advance the cause of civilization and freedom among the barbarous peoples everywhere. Other nations may be called "world powers" by courtesy, but England is the only real world power, and under her leadership mankind has made more progress in a hundred years than it had ever made before in many centuries.

APPEAL TO PUPIL'S IMAGINATION.

I would appeal to the pupil's imagination. What would have been the result if the Roman Empire had been founded on the principles of autonomy and self-government that now obtain in the British Empire? Suppose one Roman Province after another had been given a Canadian constitution and ultimately taken into full partnership till all Europe had been occupied and made one camp of co-operation instead of a number of military camps each trying to overthrow the others. If the arts of peace instead of the arts of war had been practised, there would have been no "Middle Ages." Twentieth century civilization would have arrived hundreds of years ago. Think of the billions of treasure, the oceans of blood and suffering, the wasted lives! Neither pupil nor teacher can imagine what might have been the condition of the present generation, but it would be a good subject for the contemplation of both.

But there are several possible Europes in the British Empire. Within this century Canada, Australasia and South Africa will each have a population of scores of millions. If we remain true to the British idea there will soon be a first-class British power on every continent on every sea; and the sea will be as safe as the streets of Toronto. What Rome might have done the British Empire may do in a vastly wider sphere to the permanent advantage of the whole human race.

KEYSTONE OF IMPERIAL ARCH.

England's central and insular position has made it possible for her to maintain her first place among the nations. On her borders there can be no encampments of foreign military hosts. Her floating ramparts prevent their approach. But England is filled now nearly to her capacity, and in the end must be overtaken and surpassed by the other great expanding empires if left to herself. Canada, on the other hand, has until recently been looked upon as a narrow and somewhat broken strip of inconsequential territory across the continent wedged in between the ice on the north and the Monroe Doctrine on the south. But a united Canada now knows, and the world now knows, that under the British flag Canada is capable of taking a co-equal position in the Empire with that of Great Britain herself. But she is not and never will be capable of carrying on alone the beneficent work of the British Empire. No part of the Empire can alone continue British power and influence. Union is the hope of all, but the keystone of the Imperial arch is Canada. Hers is the greatest opportunity that has ever occurred in human history, and the time is now. The children who attend Canadian schools in this generation will during their lives irrevocably settle the fate of Canada, the destiny of the Empire, the leadership of mankind for all time to come.

PATRIOTISM, AS IT SHOULD BE TAUGHT IN OUR SCHOOLS.

A. C. TODD.

The late Principal Grant, of Queen's University, writing several years ago, said, "Canada has not much of a past, not much of a present, but it has a future." It has indeed a glorious future, and its present now, too, is such that we need not make excuses for it, and we Canadians can truly say, "We are citizens of no mean country." A look at the map will show the great extent of the Dominion. It forms thirty per cent. of the area of the British Empire, and one fifteenth of the world's area. Its vastness can be realized only by those who have crossed the continent from ocean to ocean. Its striking natural features, the grandeur of its mountain ranges, the beauty of its rivers and lakes, its magnificent forests, and its vast stretches of fertile land are recognized by all travellers. Its great extent of timber lands, its almost boundless treasures of valuable minerals, its extensive fisheries give Canada superior advantages in view of the growing importance of natural resources in the development of nations. It is impossible to consider the productiveness of its soil, the healthfulness of its climate, the unsurpassed advantages of water power in this age of electricity, without feeling convinced that few countries have before them a brighter future than Canada.

A country's prospects do not, however, depend upon the extent of its territory, nor upon the wealth of its resources. These things in themselves will never make a country great, in the best sense of the term. It is "righteousness that exalteth a nation," therefore, far more important than the greatness of its material wealth, is the character of its citizens. Among the virtues that are necessary for the citizens of a country that is to be truly great is patriotism. We want men ready to die for their country, if need be, but more than that, we want men ready to live for their country. Canada is just on the threshold of her greatness, and if there is need of able and devoted citizens at the present, that need will be felt in a greater degree as the country develops. Where are to-day the citizens of the next generation, the men and women

that will mould the future history of their country? They are now pupils in our schools, learning to fit themselves for the duties of life. It is in them that we must inculcate principles that will make them the bone and sinew of our land. These are the ones to whom patriotism must be taught. But what do we mean by Patriotism? It is *not* a separate virtue or faculty, to be trained at stated intervals, nor is it the instilling into childish mind hatred or jealousy of another country and the willingness to take the side of one's own country, right or wrong, but it is rather the application and devotion of all service to the state, whether that state occupy a commanding position among the other States of the world, or whether it occupy a very humble position. One of the noblest characteristics of men and women is the love of home, whether that home be a humble cottage or a palatial mansion, and so should it be with love of country. Probably there is no better example of a truly patriotic people than the Swiss, and yet what a comparatively poor country is theirs. Nevertheless, if a nation has had a memorable history, if the nation is strong and prosperous, if the laws and institutions have helped to secure freedom, and if the policy of the Government has made for righteousness, the people belonging to that country will feel a thrill of pride, as well as love, when they realize that such a country is theirs; and they will wish to see it powerful and honored among the nations of the world.

In the teaching of patriotism in our schools the teacher plays an important part, for even if the duties of citizenship are not taught specifically in the school, good citizenship is promoted by the training of the intellect and of the conscience. Patriotism, as is the case with other virtues, cannot be taught so much by maxims as by examples, by the personality of the teacher working upon the personality of the child. The pupils are apt to revolt against maxims and lectures, but they respond readily to ethical teaching conveyed in a story, or through character, example or indirect suggestion. It therefore goes without saying that the teacher must be loyal, if the best results are to be had.

Let the impression of patriotism that is left on the mind of the pupil be that he owes a debt to those who have served the nation generously in the past, and that if prosperity is to continue, each

one must do his duty, whether it is in defence of his country, threatened with evils from without, or in assisting when its prosperity is in danger from evils or corruption from within. Let it never be that spurious patriotism that sees little that is good in other countries, and little that is evil in one's own; that claims the public acts, as a nation, to be infallible; and above all, let never the spirit of self-satisfaction creep in, for we know that "Satisfaction is the limit of achievement." We want broad-minded citizens, that can see good in other countries, and borrow from them, if need be, ideas that will tend to the best development of our native land.

There are many opportunities for the teacher to inculcate in the minds of his pupils from day to day, the virtue of patriotism. The chance might come in a geography lesson, when such a lesson as an imaginary trip through Canada is being taught. One could well grow enthusiastic over such a lesson as this, as in imagination the class travels from the "Crescent Island," the smallest of the Provinces, to that Province on the Pacific Coast renowned for its magnificent scenery, and its boundless wealth in natural resources. Or it might be a literature lesson, and such a poem as "Scots wha hae wi' Wallace bled" will make the warm blood thrill as the spirit of the poem takes possession of the hearts of the pupils. History, too, presents a field where much can be done to mould the characters of the children. Not only let the brave deeds done by our gallant soldiers receive mention, but let attention be called to the fact that "Peace hath her victories, no less renowned than war." Let the lives of the men and the women who have done much for their country receive special attention. Let the pupils hear of the heroism of the earliest settlers of our vast Dominion, of the Jesuit Fathers who suffered intense mental and physical anguish in their efforts to Christianize the Indians. Let them know the story of Dulac and his brave followers, also of Wolfe, Montcalm, Brock, Laura Secord and a host of others, whose names will be remembered with gratitude as long as there are patriots in Canada. But there are other names that may be mentioned also—men who have given their services to their country for the up-building of her industrial and commercial relations, men who have made the country what it is to-day, such patriots as Sir John A.

Macdonald, Hon. Alex. Mackenzie, Hon. Geo. Brown and Hon. Oliver Mowat. May there always be placed before the pupils high ideals of manhood and womanhood, for the poet says:

“Lives of great men all remind us
We can make our lives sublime,
And, departing, leave behind us
Footprints on the sands of time.”

There may be some special ways in which patriotism may be taught. We believe that Empire Day celebration should have a place in every school in the land, and that, moreover, we trustees should take an active interest in it. Let it be our work to do what we can to make it a success, and thus show to the children that we revere and love that Empire “on whose Dominions, the sun never sets.” We want loyalty, not only for our country, but for that glorious Empire of which we form a part. Let love for Canada and its rulers, its institutions and history go hand in hand with love for our Motherland and her King.

In schools, where it is practicable, illustrated lectures make an exceedingly interesting way of teaching patriotism, and these might be given occasionally on such subjects as “Our Heritage,” “Our Heroes of War and Peace,” “Our Motherland.”

It is an axiom of the science of education that the child should be taught the things that in after life he will most need to know, and when we think of the future that lies before Canada, and think that the children who are now attending school will one day be citizens of one of the greatest nations of the world, we know of no better or greater spirit that the teacher can instil into the child's mind than that of the patriot who is true to his country, his flag and his King. There has been no time in the history of Canada when our schools have been better taught than at the present, and we would like to impress on the teachers the importance and responsibility of their calling. It is said that the hand that rocks the cradle rules the world, but what about the teacher who has under his control immortal souls whom he can influence for good or evil for all the future of the child's life? The teacher must never forget that from the kindergarten age up to twelve or fourteen years, at the time of public school learning, the child's habits are formed, and well grounded for all time to come in the two greatest of all principles, religion and loyalty. Hence the

importance of the careful study of the different dispositions of the children under the teacher's guidance and care, for who can tell what powers and capabilities may be developing in those childish minds. What greater honor can be conferred upon a teacher than to have said to him by a Wellington, a Nelson, a Gladstone or an Alexander Muir, that he had been the one to instil into their minds that principle of patriotism that had led them in after years to devote their services to their country.

Let us, then, trust that patriotism may be so taught in our schools that there will be a "growing sense of responsibility of each one to contribute something to the greatness of the nation, a fidelity to duty, a self-cultivation, a being proud of his country, and so ordering his life as to make his country proud of him." Then shall we have a truly patriotic people.

THE HOME AND THE SCHOOL.

E. R. BOLLERT.

My subject is a very broad one, and lends itself to a wide range of treatment. So many and diversified are the interests and influences of these two potent factors in our human economy that the aspects for their consideration are practically unlimited.

I propose within the necessarily limited scope of this paper to deal with the subject rather from an ethical than an academic or economic standpoint. And I justify this course because in so many of our discussions we confine ourselves to the latter, rather than the former phases of the subject. Important as they all are, I do not hesitate to say that the emphasis should be given to the ethical work and influence of home and school life.

What is the chief business of home and school? Is it the development of the minds of young people, in the various avenues of study—literature, science, mechanics, economies, art or music? These are all of great importance. But not scientific research, not technical skill, not facility in classic lore, not a mastery of mechanics or physics, not wealth or social position are the most valuable endowments which home or school can bestow on the rising generation. With these, but above and beyond these, the chief business of home and school is to produce *character*.

Good citizenship, built on a foundation of strong moral culture, is of infinitely greater value to the state and society than business acumen, engineering skill, and men of letters. An eminent Canadian bank president some years ago, in addressing a body of young men on the elements of a successful career, made use of this alliteration: "Character, capacity and capital," he said, "are all great, but the greatest of these is character."

We have before us two environments, the Home and the School, and three personalities, the parent, the pupil and the teacher. What are the peculiar functions and duties of each? Without doubt the foundation of ethical culture is the home—that is, the home in its best sense. Therefore every home should be a Christian home. I care not what denominational preference it may have. There the first impulses of character are formed. The late Henry Drummond said, "Strength of character may be acquired at work, but beauty of character is learned at home." It is in this capacity that the reciprocal relationship of home and

schools assumes its greatest importance. Their mutual co-operation shape very largely the character of the one committed to their care. Working antagonistically or with divided purpose, much injury is done. Working together with a common enthusiasm, ideal results may be produced. I have already said that every home should be a Christian home. That is, perhaps, an ideal condition to which we have as yet not attained. But every home and every parent should lend his or her moral influence and support to the teacher, unless for very strong and valid reasons. The matter of school discipline, the reputation and estimate of the teacher, should, unless in extreme cases, be carefully guarded and supported by the parent. Nothing more disastrous to the ultimate welfare of the pupil can take place than that petty cases and causes for complaint, whether real or imaginary, which are made so frequently by the pupil against the teacher, should find too ready an ear in the unwisely sympathetic parent. The pupil's mind and habit are in the formative period. He is the raw material to be moulded by the wise counsel and discipline of home and school. In the process friction and difficulty, according to the nature of the case, are inevitable. But unless in flagrant violations of his duties and prerogatives, the teacher should have the support of the parent. And even in such cases, which I believe to be exceptional, careful enquiry into the full circumstances of the case should be made before this is withheld and other measures are invoked. The pupil should have the utmost confidence in the parent to protect him against unfairness and abuse, but should not presume on his weak indulgence. The influence of home and parent should be:

1. For maintenance of discipline and regulations.
2. For respectful bearing toward teachers and superiors.
3. For regularity and punctuality in attendance.
4. For cleanliness of person, mind and habit.

So much for the parent. What about the pupil? Well, I think the average of the boys and girls of the present day is about the same as it always has been. Human nature does not change. Youthful exuberance, buoyancy of spirit, a plentiful flow of warm blood through healthy bodies, is the priceless heritage of the average youth of this goodly land of Canada. And what more beautiful sight can inspire the heart of every lover of his kind than a crowd of healthy boys and girls? What grand possibilities lie in that life which we are told was created in the image of God.

Perhaps one of the greatest faults urged against the youth of the present day is a want of reverence and respect for age and

position, evidenced by the regrettable appellation of "governor" or "old man" to father, or "old lady" to mother, and nicknames for teachers. However, present day democracy, as well as the want of proper discipline by parents and teachers, may be more responsible for this than the wilful and inherent disrespect of the youth.

Perhaps the greatest attention of this paper should be given to the teacher and the school. As trustees we may possibly be able to exercise our greatest influence in this sphere. The years of school age bring with them a division of control and direction of the child. In the ethical development and character building of the pupil, it is of the greatest importance that right conditions at school should be supplementary to—if, unfortunately, in some cases they may not have to supply entirely—the want of influence to that end in the home.

The Teacher—what manner of man or woman should he or she be, who, next to myself, becomes the dominant power in my child's life? What condition have I, as a parent, a right to demand from the authorities which provide the machinery for my child's instruction? The teacher, according to his attributes, becomes the standard either for the elevating or debasing of my child's ideals. Now, I propose to discuss a few practical questions in a pertinent manner.

1. I demand that the teacher of my son or daughter be a person of clean heart, clean lips and clean life. I demand that he should be an abstainer from the use of intoxicants and tobacco, from frequenting questionable places, and engaging in questionable amusements. I demand that his bearing should be dignified and manly, avoiding levity and unwholesome jesting. I demand of him an enthusiasm in leadership in all that is pure and ennobling. Would that all teachers were also disciples of that greatest teacher, the teacher of Nazareth. Remember, the teacher's life and action will be a pattern for my child, and if I am a wise and sane parent this is the kind of pattern I desire him to emulate.

2. I demand that while maintaining the firmest discipline, he should be kindly considerate and prudent in the enforcement of that discipline. His punishments should not be arbitrary, nor his rebukes and admonitions made in ill-tempered language. Such words of reproach as "You fool!" "idiot!" "blockhead!" "I'd like to kick you out!" "What kind of a home do you come from?" and epithets and aspersions of a similar character, of which I have heard, are not to be tolerated in a teacher who is moulding the life of youth.

3. I demand that he or she should be well dressed and well groomed. A lady teacher who will wear the same dress week in and week out, without a change, or who is in any way careless about her attire, loses many degrees of influence and esteem with her pupils. The same with the man who wears shabby clothing, or is indifferent to scrupulous cleanliness of person or attire. And he is the pattern for my child! I have spoken only from the ethical standpoint; much more is, of course, demanded from the teacher.

While I demand all this, and more, I cannot help asking myself how can the average teacher live up to this? What remuneration am I making for services rendered of so high a character, in which I demand so exalted a type of manhood and womanhood? And my head hangs in shame when I think of the wretched, miserly stipend given to an army of men and women of the noblest and best in the land, for a service unequalled by few and excelled by none. And my mind revolts at the meanness with which the teaching profession has been treated in this respect. All honor, I say, to a government that has taken up this matter, and fixed a minimum below which such service can not be had. The only mistake is that salaries for all grades of teachers are not raised higher. A government that fixes the standard of qualification necessary to teach, has a right to protect with proper remuneration those who enter the teaching ranks. I consider this a question of pure ethics.

THE SCHOOL.

My remarks under this head apply to the highest as well as the lowest grade of our educational system. What is the spirit that should dominate the school room? I answer, the spirit of the great teacher whom I have already mentioned, Jesus the Christ. This brings me face to face with the question much discussed by good people of divergent views. *Should the Bible be taught in the schools?*

What is meant by "taught"? Is it the teaching like any other subject, say, for instance, grammar, in which certain fixed definitions and interpretations of the value and relationship of words and sentences are uniformly taught? Well, if we had one standard of interpretation fixed by legislative or ecclesiastical authority and accepted by the people, that might do. But can any one conceive the results of such an attempt? Or is it that the teacher should be left free to define or interpret any scripture lesson as he or she may think fit? How would that work out? What about

the teachers of widely divergent denominational views? Or about the teachers with no views at all? What a hideous travesty this would be on the most important of all studies that engage human attention! In denominational or ecclesiastical schools it would be all right; but in Public Schools attended by sectarian adherents of all kinds, any such attempt would be "confusion worse confounded." Would you, then, exclude the Bible from the schools? No; not in this Christian land. The Bible should be recognized and honored in every institution in the land. In my judgment, the much abused and maligned "Ross Bible" came nearer a practical solution of that question than any other effort that I have heard of. A compendium from God's word, arranged by a committee representative of the various Protestant denominations could devise a course of Scriptural readings acceptable to all. Portions could be read without "note or comment" by the teacher at the opening and closing of school, followed in the morning by the Lord's Prayer. And the daily committing to memory of verses from such compilation would result in great benefit to pupils. Possibly a historical study and writing of essays by the pupils on the history and events of the Old Testament nations and characters might prove useful, as also the study of the poetic books from a purely literary standpoint. Further than this it is not practical to go at the present time.

Strong emphasis should be laid in our school work on the value of applied Christian ethics as a vital principle in all great questions, such as national patriotism, political purity, commercial rectitude, the demoralizing influence of modern stock gambling, and get-rich-quick schemes of all kinds, the waste, and worse than waste, of the many millions annually spent for intoxicants and tobacco, social evils and immorality, and on the dangers that confront any nation that does not maintain high moral and ethical standards.

Aesthetic culture should be prominent in school life. The buildings themselves, their furnishings and surroundings should exemplify the beautiful and ornate, and bear their impress on the mind and life of the pupils.

Thus should moral culture and intellectual achievement go hand in hand to the upbuilding of all that which is noblest and best for the young manhood and womanhood of our country.

HYGIENE SECTION.

Helen Macmurchy
 THE PHYSICAL NEEDS OF THE CHILD.

(Abstract.)

I must congratulate you on your choice of this important subject. I remember reading the programme of the Ontario Educational Association some years ago, and noticing that this aspect of education was not once referred to in that document any more than if our children had been disembodied spirits. I am glad that it is not so this year.

The first of September in 1907 comes on Sunday. Then Labor Day will be Monday, and that will postpone the ringing of the school bell for twenty-four hours, as with the progress of civilization, and quite rightly, too, we are beginning to approximate to the customs of that very wise nation, the Children of Israel, and take more holidays. But the bell will ring, whoever lives to hear it, on Tuesday morning, September 3rd, and you have kindly invited me to consider with you the physical needs of these children of Canada who will come to you on that day. I do not so much mean on that day especially, but a person must have something definite to talk about, say the children of Canada.

The teacher is a public servant. The teacher is the official of the state. We forget too often the teacher's proper place and dignity, and authority and influence, and we suffer for it.

I would have you see Canada herself come to the door of the schoolroom, a troop of children holding her by either hand, somewhat before 9:00 on the 3rd of September (I think that was the day Cromwell called his crowning mercy), and make to you and to the world the proudest boast of history. *Eccce! Ego et liberi mei quos dedit mihi Dominus.*

And while they stand there at the threshold let me say that you will look in vain for 8,519 who ought to be there. Where are they?

In the year 1904 8,519 boys and girls died in the Province of Ontario under four years of age. Total number of deaths, 30,290. One-quarter of all deaths were of children under four years of age. Look at that waste of life that we make. There is a massa-

ere of the innocents greater than any Herod ever made! There is a loss greater than our losses in war, greater than any other loss of life in peace. First, then, of the physical needs of the child I would mention is a chance for life.

All civilized countries are beginning to wake up to this fact. You see, we have made progress. The average length of human life has doubled in the last 200 years. The death rate has gone down steadily. In England, in spite of her slums and her unemployed problem and other terrible problems, the death rate is going steadily down. In 1850 it was 22 per 1,000. In 1900 only 18 per thousand. Four in one thousand lives saved every year means 160,000 in 40,000,000 every year. That is the general death rate. But look at the infant death rate. In 1850 it was 154 per 1,000. In 1900 it was 154 per 1,000. One-quarter of all the deaths were of those under five years. "The weakest, the smallest and the dearest, suffer most." A very important fact from every point of view. Remember that conditions which kill infants injure many of the survivors, and sap the sources of national life. The best index of sanitary conditions is the infant death rate. Why do they die? The medical health officer of Birmingham searched out the history of 3,000 babies who died under one year of age. How many out of the 3,000 do you think were nursed by their mothers? Answer, twenty-four.

In other words if you let X equal dangers to the life of a baby nursed by the mother, then 50X equals dangers to the life of a baby fed on fresh cow's milk, and 100X equals the dangers to the baby's life fed on patent foods. There are other reasons affecting the infant death rate, but not as important as this. Of course, these facts are not known. That is why I am using the precious minutes in telling them to you.

"Concentrate on the mother," John Burns says; "glorify, dignify and purify motherhood." Anything that depresses the vitality, the efficiency, or the intelligence of the mother is fatal to national welfare.

If a mother is left a widow with five or six children, she should be paid wages by the state for bringing up these children.

Remember what the Egyptian princess said to the mother of Moses. The labor of mothers, especially in factories, is a personal mistake, a social blunder and a national tragedy.

[A brief account was then given of efforts now being made in England, France and America to lessen infantile mortality.]

Let us go back to those who have survived.

It is a great event when the child goes to school. I would not like to say that it will never be glad, confident morning again—but it will never be morning without any definite responsibility again. He is taken by the hand now, though he does not know why, “to enter a kingdom he can never all explore, to learn a lesson he can never all understand, to live a life he can never all explain.” “He is the hope of his father and mother, he is the problem of his teacher, he may become the despair of himself.”

First of all, we must consider the school as functional environment.

“Why functional environment? By this phrase I wish to indicate that the primary thing to consider in the hygiene of a school is the point where the actual structure affects the living, actual child. From nine in the morning to three or four in the afternoon the child is acting on the school, and the school is reacting on the child. He must breathe. Is the air over-night fresh? He must move about. Have the floors and forms been properly cleaned of dust? He must sit down. Are the seats the correct height? He must write. Are the desks the correct height for his size? Are they too near him or too far from him? He must read. Does the light shine from his left side? He must see the black-board or the wall card. Is it placed in the correct light for him to see? He sits for most of an hour. Is the room warm enough? Are the heating appliances in working order? Has he on clothes enough? He reads aloud in his class, or shouts, or sings in concert; he coughs, or sneezes, or otherwise clears his air-passages; in a thousand ways he fills the air with pollutions from his mouth, nose and lungs? Are the walls cleaned? Are the maps cleaned? He spits on his slate, if he is allowed to use one; he bites his pen; he chews his pencil. Are slates, are pens, are pencils cleaned? At the word of command he springs to his feet, marches, marks time. Has he wiped his shoes on the mat? Are the floors cleaned? Are the doors and windows opened to keep the beaten room clear of dust? He swings his arms, he creates a thousand currents around his body. Are his clothes clean? Is his head clean? Are his hands clean? So, through the whole day he is in living touch with some part of the school. He is continually using and abusing. He is collecting and re-distributing dirt and dust all day long. I say nothing of the major matters—lavatories, water supplies, closets, drainage—these are all to be assumed. They need the most stringent supervision, and they do not always get it. What I should wish to paint is the restless, growing, skin-shedding, mucous-shedding,

dust-distributing, spitting, coughing, and shouting demon that the school boy at his worst and best always is. Where one boy is, it takes a woman to keep the house clean. Where a thousand boys are, it takes a local authority.

“That is what I mean by functional environment; it is the environment that the boy captures and handles as his own in the school. When you think of it thus, in detail, you have no difficulty in understanding why we are, in season and out of season, insisting on the necessity for fitting the boy to the school and the school to the boy. Let there be water, drainage, lavatories, cloak-rooms, systems of heating, systems of ventilation, fires, opening and closing windows, under-floor ventilators, good walls, good floors, good roofs, good playgrounds. But let it be remembered that the health of the school child depends on the use that he is able to make of these appliances and the way they are adapted to his needs. It is not ventilating appliances alone that are wanted: it is ventilation. It is not water alone: it is washing with water. It is not heating pipes or fires alone: it is heating with heat to the degree necessary for the physical comfort of a delicate growing organism. In a word, it is not only the statics of hygiene that we want: it is the dynamics as well. That is why the school and the school child must be studied together as an organism and an environment: the needs of the one must find an answer in the conditions of the other, the needs of the child in the structure and management of the school.

“THE STRESSES OF SCHOOL LIFE.

“The primary stress of school life falls on the nervous system; for the primary business of the school is to educate the incompletely developed, but rapidly maturing brain. Many children break down at the outset; many break down toward the end; many suffer in minor ways that are never noticed at the time; all are liable to suffer in growth and in nutrition. This fact alone makes good hygienic environment and good hygienic administration imperative. The stresses that more openly and directly concern the sanitarian are the infectious diseases, the skin diseases, the results of bad atmosphere, and the results of filthy homes. The diseases I leave alone. Two good topics for discussion are, how best to secure a good atmosphere, and how to deal with dirty children.” (*W. Leslie MacKenzie.*)

Remember, too, that little children must not go up to class-

rooms upstairs. Remember that the eyes and ears may not be good. Remember that the height of desks should be adjustable (in a number of desks at least), because at six years of age there may be a difference of six inches in height in different individuals. Then we must think of lunches, of water for the children to drink, and, in the near future, of the school bath.

I have left myself but little time to mention that the child needs: frequent recess and change, for attention is only possible for brief periods; adequate holidays; play; plenty of sleep; large enough type to read; large enough things to work with.

Be careful what stories you tell a child—never anything that is not fine and noble—never anything to frighten, no terrors.

Up to nine or ten years, let boys and girls play together, under careful but unobserved supervision. They are not always innocent, even at that age.

The great fault of our system is over-pressure. Attendance at the best school in the world is not worth a hasty breakfast and a hurried lunch—still less a headache or a heavy heart.

“Perhaps nothing will so much hasten the time when body and mind will both be adequately cared for as the diffusion of a belief that the preservation of health is a duty. Few seem conscious that there is such a thing as physical morality. Men’s habitual words and acts imply that they are at liberty to treat their bodies as they please. The fact is, all breaches of the law of health are physical sins. When this is generally seen, then, and perhaps not till then, will the physical training of the young receive all the attention it deserves.” (*Herbert Spencer.*)

“Sometimes we are tempted to think the world is growing worse, and is a harder place to live in—that isn’t true—”

“Happiest beyond compare—
Never to taste of life;
Happiest in order next,
Being born, with quickest speed
Hither again to turn
From whence we came.”

—*Sophocles.*

Of course, when that was what the Greeks thought of life, one does not wonder at their estimate of childhood and their treatment of the child. And I know no greater proof of the victory of the Cross than the change it has wrought in the world’s treatment of women and children since He said: “Suffer little children to come unto Me, and forbid them not, for of such is the Kingdom of Heaven.”

SCHOOL HYGIENE.

BY PROFESSOR A. P. KNIGHT, QUEEN'S UNIVERSITY,
President of the Hygiene Section.

Ladies and Gentlemen,—Hygiene treats not merely of the health of the individual, but of everything that affects the health of individuals, whether grouped together in the home, the school, the community, or the nation.

When one member of a household falls sick, the fact becomes a matter of household hygiene. If the sick member is a child attending school, and the sickness is due to a contagious or infectious disease, the fact becomes a matter of importance in the school which he attends and in the community in which he lives. Hence hygiene, in its widest sense, will include the following subdivisions: personal hygiene, household hygiene, school hygiene, municipal hygiene, and national hygiene.

No one, of course, will pretend that these subdivisions are clearly marked off from each other. On the contrary, they touch or overlap at a number of points; but, notwithstanding the cross-division, it will give clearness and precision to our discussion, if we recognize some such distinctions as these when we use the term hygiene.

Now, on looking over our school laws and regulations, it is clear that the Education Department has charged itself with the duty of giving our teachers some measure of instruction in personal hygiene, household hygiene, and school hygiene. The regulations of last July will, if enforced, produce almost a revolution in school hygiene. They fix the basis upon which a large proportion of the legislative and municipal grants shall be distributed. In these regulations the Government touches the ratepayer on his two tenderest spots—love for his children and care of his pocket—his cupidity and his affection. The increased money grants offered for improvements in school accommodation, equipment and salaries will bear fruit an hundredfold throughout the

Province. The Government deserves great credit for the stand which it has taken in these matters.

But while the Department has been thus planning for hygienic improvements in the rural schools, it is becoming increasingly plain that less attention is being given to personal hygiene—that is, to teaching children the essential rules of health—than there was two years ago. The cause of this is attributable to the changes in the regulations which went into force in August, 1904.

Up to that time, a written test had been exacted in physiology and temperance at the entrance examination. In 1905' this test was abolished. Now, while I am no advocate of the teaching of physiology and temperance to Public School children, the teaching of these subjects up to 1904 involved a certain amount of instruction in personal hygiene, and therefore some of the rules of health could hardly fail to have found a permanent place in the minds of most school children; but with the abolition of the written test at the entrance examination, the teaching of physiology and hygiene on our new curriculum is comparatively neglected, and the time thus saved is spent upon other subjects which will "tell" at the entrance.

But not merely do teachers neglect the teaching of hygiene; they do not know the subject, and, therefore, cannot teach it. The Education Department excludes this subject from the High School curriculum, and from the subjects of the teachers' non-professional examination. Whatever excuse may be given for excluding physiology and hygiene from a Public School pupil's examination, no good excuse can be given for excluding it from a teacher's. Of course, hygiene is not completely ignored. The Model School principal is allowed to assign the subject 50 marks out of 900 at his sessional examination, and the Normal School principal is allowed to allot it 50 marks out of 3,100 marks; but the Education Department does not recognize the subject as of sufficient importance to examine upon it at any professional or non-professional examination which it directly controls.

Perhaps no one has advocated the claims of hygiene to a place on the school curriculum more ably than has Herbert Spencer, and when we find that Spencer's book on education is one of the authorized text-books for the professional training of teachers, we wonder

that the Department has been so remiss in its duty as not to make thorough provision for the teaching of this subject.

A child's happiness and success in life depends largely upon good health, and for this reason hygiene should occupy a first place among the subjects of the Public School curriculum. Now, good health depends chiefly upon two things: (1) a good heredity—sound ancestry—that is, a good constitution; and (2) it depends upon an observance of the laws of health. Our Public School system cannot give to pupils a good heredity; but it should see that every child in this country receives systematic and efficient instruction in the best methods of caring for his health.

No inordinate amount of time is asked for the subject in the school time-table. Fifteen minutes per week for the two lower forms and thirty minutes per week for the two upper forms would be amply sufficient to enable a competent teacher to cover a course of instruction in the essentials of the laws of health.

The fact is that personal hygiene and school hygiene should be matters of national concern with us, and should receive vastly more attention from the Education Department than they have hitherto. In the laudable desire to develop the resources of the farm, mine and forest, "the general purpose cow," the sawlog and the silver nugget have received more attention from the Government than the health of our boys and girls. Half an hour a day for two or three years must be spent upon the study of plants, animals and minerals by those High School pupils who intend to become teachers, but not a minute a day is compulsory for the study of personal or school hygiene. Worms and weeds are apparently far more important in the estimation of the Education Department than the health of our future men and women.

If our Education Department would but take the initiative, it could do a vast deal towards checking the ravages of consumption. This disease has claimed 64,928 victims for itself during the past 25 years. Now, we know that malarial fever has been stamped out of many infected districts through the co-operation of teachers, school children and parents, and there is no doubt that within a few decades consumption also might be almost exterminated, if only the Education Department would exert itself in the right direction. But certainly the right direction is not to exclude the

teaching of hygiene from our High Schools, or to relegate instruction in this subject to the tag-end of an overloaded professional curriculum.

What are other countries doing in this matter? A glance at the regulations and curriculum of United States schools and of British schools will show that this address does not exaggerate the importance of hygiene teaching. In the former, physiology and hygiene have always held a prominent place; in the latter, the place which hygiene holds in the public mind to-day is most strikingly prominent.

Public opinion in Ontario on educational subjects is more likely to be influenced from English than from United States sources, and therefore I may be permitted to point out that hygiene receives much more attention in England than in Ontario. In a small Blue-Book issued by the National Board of Education in England in 1905 there are eight pages of suggestions to elementary school teachers regarding the school and the health of the scholars. Not merely are such subjects as heating, ventilation, lighting, equipment, posture of pupils, etc., discussed, but signs of infectious disease, signs of good health, signs of poor health, normal children, defective children, and epileptic children. Moreover, an outline scheme for teaching hygiene and temperance is given in detail, and covers no less than fifteen pages of closely printed matter.

Add to this the fact that during the coming summer Britain is convening a second International Congress of School Hygiene. The first was held only three years ago. At this congress every aspect of the hygiene of school and scholar will be considered. From the facts thus briefly referred to it is abundantly clear that public opinion in Ontario is far behind what it is in Britain on this matter. Britain looks upon hygiene, especially since the Boer War, as a subject of vital national importance. Ontario gives it less attention than she gives to the feeding of pigs and cattle.

MANUAL ARTS SECTION.

*APPLIED DESIGN.**

BY AUTA POWELL.

When I consented to read a paper on Applied Design before this Section it was not with any feeling of special fitness, but rather because I felt my own need of giving to it further thought and study.

I shall try, then, to give you some little of what I have gleaned from recognized authorities, whose success blazes a way for us to walk in, together with such experiences of my own as might possibly be of help to others travelling along the same pathway.

It has been protested that throughout the child's stay in school the problems presented to him are school problems not life problems, and it is to obviate this in some measure that so much effort is being made at present to make his art education as practical as possible.

The art course is very wide; the study of plants, still life, landscape, life, color, perspective, design and industrial drawing must each be given a fair share of attention.

The chief aim in all is the cultivation of good taste. And with this end in view a careful study of the principles of pure design ranks of highest importance.

In the teaching of design there are certain rules we must set for ourselves and observe rigidly, if we wish to escape discouragement. I do not think I can do better than to quote from James Parton Haney's "Classroom Practice in Design," the following six principles, which I shall take for my text:

- " 1. The designs made must be for use.
- " 2. The forms decorated must admit of decoration.
- " 3. The designs must be based on structure.
- " 4. Their treatment must be conditioned by material.
- " 5. They must permit individual interpretation.

* In connection with this paper, there was an exhibit of suitable examples made by the teachers and pupils of the London public schools.

"6. Each problem in the sequence should develop through a series of similar steps, with increasing complexity in the relations of the elements employed."

It is not possible to make use of every design made in school, but that can be kept constantly in view in all the lessons.

If, in the studies from Nature, stress is laid upon the making of interesting compositions, and the pupils are taught to make use of a finder for the getting of different compositions, Nature study may be made a preparation for design. From the very first pupils should be taught to consider background shapes, and endeavor to make them as interesting as the foreground. They should be able, too, to see contrasts of dark and light before they know anything of light and shade; and there ought never to be any confusion of the two. They should learn to criticize every drawing they make from the standpoint of design, looking for balance, harmony and rhythm in even their illustrative drawings.

It is interesting to note that, if one member of a class has this power of making his illustrative or memory drawings cut the space to be occupied in a fine patterny sort of way, the whole class will manifest to a certain extent the same style, which shows that a little leaven will work wonders.

Children are not slow to recognize the good where there is constant class criticism and a little judicious leading. The grade teacher, however, who shows me the best work of this kind, assures me that she never influences her class in any way beyond having them choose what they think is best and give their reasons for considering it best. The moral of this is, do not neglect class criticism.

In picture study their attention can be called to the wonderful use Corot, Millet and a host of other artists have made of the principles of design, and that it is a keen appreciation of these, rather than the skill shown in a faithful portrayal of nature, that lifts certain pictures far above the commonplace.

Let us consider the first simple designs made in the Primary grades. What use can be made of them? Here the constructive work is limited, yet many forms can be made of stiff paper that admit of decoration. Boxes may have simple surface patterns. Tulips or other single flowers or leaves may march in regular order around the border of a tissue paper handkerchief, or doiley,

or doll's table cover, behaving in a seemly manner in keeping with their surroundings. Pretty, carefully spaced, colored stripes may decorate an inglenook seat or such a seat as one sees covered with chintz, and placed with its back to the foot of a bed, hiding in its ample interior a capacious box for the accommodation of articles of dress.

But beware of decorated furniture in the main; and, oh! guard against too realistic forget-me-nots and rose-buds sprawling in riotous confusion over the surface of anything. I get trays and baskets covered with the most painstaking bunches and sprays and garlands of flowers, so bad in line and mass and color that they make my heart ache because of the worse than wasted time and pains that have been spent in the doing of them, and because of the hopelessness that is ever ready to settle down upon a supervisor.

It will not do to say as you feel: "This is utterly wrong. You have left undone the things you ought to have done, and done those things you ought not to have done, and there is no health in your work." Yet it would be not only false but a false step to commend such work. Teacher and supervisor alike must guard against giving discouragement, but at the same time point out a better way. Praise for the effort made prepares a way for the criticism that follows. Reward should follow sincere effort; criticism should leave the pupil in a humble frame of mind, but not dejected before the new problem.

There is a splendid article on "Design in Primary Grades," by the Editor of *The School Arts Book*, in the June number, 1906. Summing up, he says: "In primary grades the whole aim is to make things that the children like, and are not too bad from the point of view of a person of informed taste; things that can be gracefully outgrown." As they gain in skill their realistic patterns may gradually give way to purer design. In the higher grades we are confronted by greater possibilities joined with greater limitations.

But let us continue the consideration of the materials they have at hand for design. Their flat tone compositions of animals, flowers, landscape, or the figure may be made use of for calendars, book covers, illustrated magazine pages, lantern windows, tally cards, Christmas cards, etc. Action studies may illustrate verses, ink paintings of twigs add interest to Nature study essays.

You may think I am getting beyond my subject, but even the writing of a letter may be made a lesson in applied design, and the letter be twice as attractive in appearance just because it has been thought of from the standpoint of design, and arranged accordingly, though absolutely devoid of ornament.

Avoid trying to do something unusual. Into that pitfall go headlong those who are fond of drawing or who have unusual ability in that direction.

The grade teacher says, "Oh! Johnny is our artist. Johnny, show Miss X what you can do." Thus admonished, Johnny proceeds to do stunts on a piece of paper. He works with a full palette, and disdains to relate his colors in any way. Ribbons of cerulean hue ripple in and out. Pink, yellow and purple flowers, their stems at cross purposes, are scattered about with elaborate carelessness. An inscription with fantastically curled letters is twisted to accommodate itself to the vacant spots. The corners are drawn turned over with what Johnny calls shading around them, and lastly a red, red heart is pinned to the paper with a realistic dart, and with simulated drops of blood oozing from it, or perhaps from the long-suffering, over-burdened paper. Johnny bears himself modestly, as a genius should, while the class looks on torn between envy and pride. His teacher, mistaking your embarrassed silence for a spasm of admiration, says, "Johnny can do another for himself. He would be proud to give this one to you." Poor supervisor! Poor teacher! Poor Johnny! And yet the teacher is right; Johnny's work is clever, but it is misdirected cleverness. The hand that rippled that ribbon was engineered by a brain reaching out for rhythmic movement. But Johnny and teacher alike have such meagre guidance, and so much to lead them astray! What wonder that they think his work good! They see just such things in the shop windows, expensive too, and is not the amount a thing sells for a gauge of its worth?

Then, too, it is so fatally easy to consider a thing from its separate parts, forgetting that it must be considered as a whole, that "unrelated parts must not be allowed to clamor for individual attention."

What looks difficult is seldom good. Again and again I tell the children, when they are greeted with such approving remarks, as

"Gee! that looks hard. How did you ever get it done?" they are to tear up their work as useless. On the other hand, if the prevailing comment is, "Humph, that looks easy. I could do that myself," they are to plume themselves upon having accomplished something worth while.

Style has been defined as "Direct straightforward simplicity," and I know from sad experience that every class exercise must begin with the warning, "Keep it simple," and end with the criticism, "Not simple enough." A study of Greek ornament helps one to realize the value of plain spaces.

Another grave but common error is the repetition of a unit over a given surface without any thought as to the purpose it is to serve. The thing decorated was intended for some purpose wholly apart from its decoration, and unless the decoration is subordinated to that purpose, and increases the beauty of the thing decorated without calling attention to itself, it is wholly out of place.

Hence the problem placed before the class should be very definite. The pupils should know for what purpose the design is intended, in what materials it is ultimately to be worked out, the limitations of that material, and the principles of design to be observed.

Often a rather good unit fills you with wild unrest by the manner of its placing. Variety has been achieved at the expense of harmony and unity. The movement of a surface pattern is seldom improved by a change of direction in its repetition. The unit cannot stand on its head in one row and on its feet in the next, with every other unit in each row leaning jauntily to one side or the other, without losing dignity.

Let us take the words of William Morris to heart: "Nothing made by man's hand can be indifferent; it must be either beautiful and elevating or ugly and degrading." The poor, commonplace design is a crime against the beholder, whether he realizes it or not.

The time spent in impressing these things upon a class is not lost, and there is no better way of driving it home than by class criticism. Present results are of so much less value than the development of power, appreciation, and right judgment.

A teacher once objected to putting up her work for criticism upon the ground that she did not believe in putting anything im-

perfect before them, and that their efforts were so imperfect that she thought it better not to let them be seen collectively. In refusing to do so she restricted their growth by depriving them of the chance to test their work by seeing it at long range or by comparing it with that of others.

It is perhaps unwise to lay too great stress upon the conventionalization of flowers or other natural forms, though they must be idealized before they can be legitimately used for design, as here the pictorial is out of place. Conventionalization does not mean the twisting of some natural form into unrecognizable shape. It means the selection of the typical, rather than the accidental; the big truth of the class without the unnecessary details of the individual; the eternal in the transient.

The real test of a design, whether it be naturalistic or geometric in character, must be a consideration of line and mass.

"Nature is necessary to the designer, but not to the design"; and as "in nature beauty and structure are so interwoven that the two are inseparable, so in design the decoration must grow up with the structure." Before we come to a consideration of this, let us retrace our steps to our first principle.

The design made must be for use.

You say, "Time and the materials supplied are too limited." But is it necessary that every design should be applied at school. May it not do missionary work in the home? Lace patterns for collar and handkerchief edges, cross-stitch patterns for linen turnovers, embroidery and braiding patterns for shirt-waist fronts may all be designed at school, and worked out at home. Squared paper, useful for the development of woven patterns, may be used for the designing of bead chains and belts to be woven in the holidays. Paper belts may be pierced or painted to be worked out in leather, backed with satin, or decorated with colored inks. Stencils may be made for lampshades, or for stencilling grass matting, plain burlap for rugs, and burlap or denim for cushions. Wood blocks may be carved, and used to stamp borders on curtains. Clay jars may be modelled, the best to be fired, others may be dried, painted with white enamel within, soberly tinted without, and used to hold bulbs just ready to bloom. Panels may be modelled in clay and cast in plaster of paris. It would be unwise to try all these things, but there is an abundance to choose

from, besides the wooden trays, brackets, and book-racks made in the manual training classes.

The forms decorated must admit of decoration.

Not all forms can be decorated with propriety. Ornament is out of place on a knife box, or chopping bowl, and all the humbler sisterhood that serve man's wants in the culinary world. Some ordained to more ornamental uses may be soberly enriched, or sing with line and color in accord with their proper surroundings.

The design must be based on structure.

The structural lines of the object should remain unbroken, and the decoration should serve to strengthen these lines, and to them should all lines in the ornament be related.

It is well to begin with a line parallel to the edges, dividing the space to be decorated into two well proportioned areas, centre and margin. This strengthens the boundary lines. A line may grow out of this parallel line modifying the areas. A strap may take the place of this line, and still serve the same purpose. The strap may develop into a flower, or fret at the corners, thus adding further strength to these points and greater interest to the whole. The strap may become a border by the introduction of lines cutting it into rhythmically related shapes.

To quote again from Dr. Haney: "Each model should be carefully considered from the standpoint of structure, and joints. edges, feet, locks, hinges—all those things which particularly characterize it—should be examined to see which offer the greatest advantages as points of force, 'start' or 'growth' points from which the pattern may spring.

"It must be the effort to make the decoration appear as an intrinsic part of the model. The form itself must condition the design, and such design must not take precedence over the function of the object. The latter must still declare itself, rack, mat, or box-top. The design must support and strengthen the idea of function, while it serves to create a greater interest in the surface on which it is placed.

"The illustrations of this law are various. The plan of a design for a book cover may, for instance, be gotten from the stitches which hold the leaves together, that for a box from the edges, feet and lock escutcheon of the model. Racks which stand may properly have the design rise from the points on which the pressure

comes, while forms which are to hang should have their pendant quality made plain.

“Others which are to enclose a space, as dishes, trays, etc., may have this holding quality indicated, the pattern aiding, as the sides of the form itself, to contain the things within. The portfolio held together by metallic fasteners may have the design spring from such points, while the closet door, hung on hinges, may have the latter extend into ornamental bands, that divide the door into interesting spaces, and call attention to the points which support the form itself.” Herein is a chance for a variety of interpretations; one design may emphasize the shape of an object, another its corners or its hinges.

It is well to take the model to be decorated, and discuss the points of structure it offers from which the decoration may spring to advantage, developing two or three of these upon the board in a suggestive way, and allowing each pupil, in working out his own exercise, a choice as to which feature he shall emphasize, cautioning him beforehand to bear in mind that he shall be called upon to defend the structural propriety of his design.

Treatment must be conditioned by material.

Coarse surfaces necessitate broad and simple treatment. Finer textures require a more delicate handling. That which charms upon a transparent muslin would be lost entirely upon a coarse burlap. Things to be viewed at a distance require comparatively large masses with strong connecting lines. In designs for leather the light and shade produced by the tooling must be taken into account. A design easily printed may be impossible to weave without alterations; while sharp angles and intricate curves offer insuperable difficulties to the carver on the brittle surface of hardwood, where the decoration should serve to bring out the grain, not to conceal it.

Problems must permit individual interpretation, and should develop through a similar sequence of steps.

To give the pupils too great opportunities for individual treatment at the outset tends to paralyze effort or lead to the perpetration of a bewildering complexity of errors.

At this stage it is necessary to have good illustrative material; and at first the solution of the problem should turn upon the modification of only one or two lines or spaces. More latitude

may be given as the pupil gains in the knowledge and application of principles, until finally he determines the whole design, through all its steps, from the shape and size of the first mass to its breaking up into conventionalized forms of varying complexity.

Having chosen a mass which is structurally satisfactory, care must be taken that this desirable quality is not lost by the breaking up of the mass into parts which show as separate spots, because they are too far apart, do not conform to each other's outlines, or do not radiate from a common centre.

Before the introduction of subject matter into these spots and masses, there should be practice in the expanding, contracting, and modifying of given conventionalized units to make them conform to differing shapes. Charts of these flower forms are of great assistance to the teacher.

That the pupil may be led to finally meet such problems successfully, it is necessary that the teacher make adequate preparation before each lesson, that he travel the same road that the pupil is to travel in order to know just where difficulties will arise and how to surmount them, that the problems be very simple at first, and be mastered step by step, and that class criticisms be frequent where good designs are commended, and their superiority pointed out, and where mistakes are pointed out and their remedies suggested.

Mr. Parsons declares that to say: "This is bad. I do not like it. Do it over," is as efficacious as to say to a sick man: "You are ill. I regret it. Get well." Yet how often, through lack of time or incapacity, we are tempted to be just such useless physicians.

More help and more inspiration are needed by teacher than by pupil and there are many places where they may be found.

In his book called "The Principles of Design," Batchelder defines pure design as "an arrangement of lines or masses in an orderly way for the sake of their decorative value." Again, he speaks of it more definitely as "the composition of tones, measures, shapes for the sake of rhythm, balance, harmony, the principles of order and beauty." He strives to put these principles on a scientific basis, balancing masses according to their size and contrast upon the centre of the enclosing space and distant from it in inverse ratio to their power of attraction, just as a man and a boy may balance on a see-saw, the boy requiring the long

end of the board to maintain the equilibrium. Whether or not others are wholly right in asserting that in practice designs so planned often appear to be lacking in repose, the idea certainly gives one something definite to work upon, and a careful perusal of this book cannot fail to be helpful.

Japanese sketch books and books of design show the vigor given by the use of a few main lines, and the shutting out of all unnecessary detail. They are splendid examples of rhythmic movement and balance. Japanese color prints add to these qualities the repose of well-related masses and exquisitely harmonized colors.

A study of Greek ornament will enable us to feel good proportion, that is, "the agreeable relation of varying quantities," and reveal to us the use and value of a dominant measure.

"Art Composition," by Arthur W. Dow; "The Prang Art Text-books," "The School Arts Book," and "Classroom Practice in Design," by Dr. Haney, from which I have quoted freely to-day, all give the inquiring student fresh light upon the paths by which different seekers are reaching the same goal. On all sides one finds these seekers, for in every craft there is just now a growing dissatisfaction with what has satisfied in the past and a reaching out for better, truer, more harmonious things.

After all, "Decoration is the first impulse of the savage and the last despair of the artist," and we who are in between must not allow ourselves to become disheartened, for we have the experience of those who have struggled in the past, and the inspiring guidance of those who are in the lead now working out a pathway before us.

*WORK WITH SHEET METALS.**

BY A. J. PAINTER.

It is the belief of many that wood has been used too exclusively as a medium of expression in Manual Training. The result has been that the Manual Arts room has sometimes become to the boy but a carpenters' shop, and it is difficult for the public eye to view it in any other way.

The introduction of a new material into the latter years of the course would give the boy a new medium of expression, and open a new field of observation for him, and would also place the manual arts room in a position to be viewed more favorably by the public.

The question arises, then, what material may be introduced that will fit in with the woodwork, that the work may be carried on in the same room and with the minimum of expenditure in the way of tools, shoproom, etc., with the maximum of useful exercises for the boy?

It is surely a mistake to limit children to one or two materials in their Manual Training exercises. The work should be as far as possible typical of the common industries of the country. Why then deplete our forests when our mines are second to none in the world? Sheet metal has at least an equal claim with wood on the basis of its being typical and easy to handle, requiring but little equipment, being capable of as much thought development, and not too expensive, and with the added advantage that metals, such as iron, copper, brass, and aluminum, may be used in part in the construction and ornamentation on many of the wooden models.

Cunning workers of metals existed in remote ages, and some most wonderful and excellent examples of their works are to be found in many of our old world museums. In the days of the Greeks and the Romans much attention was paid to metal working, the craftsman of that time attaining a high degree of skill especially in the making of jewellery, ornaments, shields, etc.

* This paper was illustrated with a set of tools and a number of objects made of sheet copper, brass, and aluminum at the Consolidated School, Guelph.

From this time until the fourteenth or fifteenth centuries very little was done in this work outside of Italy; but gradually these centuries witnessed a great revival in metal working, especially Repousse or raised work, and many valuable examples of the period are in existence.

In modern days machinery has been introduced, and is the cause of a great decline in the number of metal workers as well as of all other craftsmen, but for artistic work, the work of these craftsmen who still practise this ancient art compares quite favorably with that of their predecessors.

The popularity of modern art furniture has led many art craftsmen to take up the fascinating study and practice of pierced metal and Repousse work, and much may be done by workers in the craft towards beautifying their own homes.

Much may be learned from the beautiful and intricate examples of metal work made by the native craftsmen of India, who from the earliest times have been noted for their work.

The South Kensington museum contains some of the finest specimens of Indian work in the world, and the Canadian Manual Arts instructor who is fortunate enough to be able to repay the visits made to this country by the British teachers could not do better than to spend an hour or two examining the perfect examples of antique and modern work exhibited there.

If then in ancient times these metals were known and utilized as useful, and have continued to hold their own, and even increase in usefulness down through the ages, it would seem ample justification for their being introduced into our course of Manual Arts.

Among their valuable properties may be mentioned their toughness and ductility. Their toughness enables them to be beaten and rolled into thin sheets, and their ductility enables them to be drawn out into the finest wire.

Work in sheet metal has been introduced into the public schools of Great Britain and the United States with gratifying results. It has proved itself to be a valuable departure from other branches in Manual Training work, and gives promise of being permanent.

There is something about the work that appeals to the pupils and holds their interest with a decided fascination.

The nature of the material; hard enough to offer some resistance, and yet pliable enough to allow of being worked into many

different forms. The durability of the object when completed, and the great variety of colors that may be obtained, especially with copper; all tend to make the subject not only interesting but fascinating.

Together with this the fact that many worn-out utensils from the home, and scraps from the shops may be converted by the boy into useful and beautiful articles, while at the same time furnishing a means of excellent training for the eye, and an opportunity for practice in the making and manipulation of tools, and likewise a uniform training of the right and left hand should surely be a sufficient demand for the introduction of sheet metal into our course.

The equipment necessary for beginning work with sheet metal should depend largely upon the existing conditions at each particular room or shop. It would seem best to have the metal gradually introduced as a necessity growing out of desire to satisfy a want in connection with the woodwork; as corners, escutcheons, hinges, handles, etc.

These might be suggested by the teacher, and the designing left to the pupil, always subject to the approval of the teacher.

The design having been decided upon and worked out on paper, the next thing to be considered would be the material.

This might be furnished by the School Board, or perhaps, in the introduction of the work, it would be better to utilize a piece of copper or brass taken from a worn-out utensil of the home as hinted at above.

The next process would be to thoroughly clean and anneal the metal, and these are most expeditiously done by heating to a good red heat, and plunging into clean water.

The heating may be done in the most convenient way at hand, either by an annealing tray, a gas flame and bellows, an engine-furnace, or a common coal stove.

Many metal workers do not use the water, simply allowing the metal to cool gradually; this process is slower and certainly much less efficient where the material is very dirty.

To finish the cleaning process it may be necessary to use what is commonly called pickle, a weak solution of nitric and sulphuric acid, or, in the case of brass, nitric alone is used. But here again is ample field for the pupil to experiment along the line of a con-

venient and safe process for cleaning. A jar of common paste in which a small amount of the above acids have been thoroughly mixed, forms a good and convenient cleaning paste. Le Page's glue also does the work fairly well, but the cleaning process will always depend largely on the nature of the dirt to be removed, and we generally find it necessary to finish with fine emery or crocus paper.

In placing the design on the metal any device which is good, and is the pupil's own, is best, but two methods are usually followed. The design is drawn on paper and the paper is pasted or glued on the metal, or the design is transferred from the paper to the metal by the use of carbon paper, after which it is traced by what is called a scribing point, but any hardened piece of steel with a blunt and a sharp end will do.

The pasting on method is best used for pierced work, but where the tracer is to be used the paper will be found a hindrance to good tracing.

In the case of pierced work a metal saw is indispensable. The kind used is a common jeweller's saw frame, with perhaps a sweep of five inches, and piercing saws which cost ten cents a dozen. The metal sawing will not be entirely new to the pupil, although enough different from wood to be of value.

After the work has been sawn out the introduction of a fine set of finishing files will be necessary, and here again the amount of work required will depend largely upon the accuracy with which the former processes of sawing and working out have been done.

The drilling of holes for nails for screws should be done at the same time as the holes for the insertion of the saw are drilled, and for the following reasons. The metal is less likely to give an unequal resistance on account of the holes being near the edge if bored after being sawn. These holes are often used for fastening several plates of metal together by clippings from the metal, and thus the holes are uniform, and several sheets are sawn at one time by placing the one with the pattern on it on the top.

These sawing and boring exercises may be continued in the making of hinges, finger plates, etc., while the introduction of filing and shaping of a somewhat different character would come with draw-pulls for doors, or drawers; and here again, is a wide field for the pupil in working out designs suitable, and in unity

with the variety of wood and finish of the article for which the fittings are to be made.

Pupils by this time will have become enthusiastic, and will have observed many things in the shops and homes that will suggest new models to them. From these it will be necessary for the instructor to select such as may be utilized to introduce new exercises and new tools into the work, and naturally the next might be chasing and stamping.

The tools for this work must be made from steel very highly tempered. They might be easily made by the careful worker from a small bar of steel, ground on a grindstone or emery wheel, and then tempered and burnished. Larger sizes and varying shapes may be made from a larger steel bar or old fork tines, as necessity requires.

I should like to emphasize the fact that from the beginning pupils should, whenever it is at all possible, make their own tools, as a necessary part of the best training in the work. From the very first they should make their own hammer-handles, mallet heads and all wooden, horn or metal tools required in the construction of the work, and it is to be hoped that the time may soon come when no wood-working room will be considered as fully equipped unless furnished with a wood turning lathe, even though it be a foot power one. There is nothing which is more fascinating, and furnishes so many useful exercises in hand and eye training at so small an expenditure. General lessons may be given when necessary in making of such tools as "chasers," raising tools, pearls, punches, matting tools, etc.

Stamped or Grounded Work.—The model must first be considered, and drawn full size on a piece of drawing paper. Cut from a sheet of metal, a sheet just a little larger than the size of the drawing, say a quarter of an inch margin. Before proceeding further the metal must be straightened and made flat with the face of the metal on a block of wood, and with light springy blows until all the dints and uneven edges have been straightened. Heavy blows will only make more dints.

Both sides must now be cleaned thoroughly. Make a tracing on tracing paper from the drawing and transfer from the paper to the metal by the use of carbon paper. As these carbon lines are easily erased, the sharp point of the scribe should be brought into

use, guiding it against the steel ruler, and so scratching in the lines, the carbon marks may be rubbed off with the turps. rag.

The next stage of the work may be done in various ways, viz., fixing the metal on the pitch block, or nailing it down on a piece of hard wood covered with lead, or nailing it down on the end grain of a soft piece of wood.

Having fastened the metal to the block, the first tool operation is begun. Using the tracer and small hammer, indent the scratched outline in order that it may show on the reverse side of the metal. With a light touch keep the tracer to the line working gradually towards or from you until the whole scratched line becomes one dint. If this method is not followed the result will be a series of uneven marks, having a very poor appearance. The grounding or mat may next be worked in with a tool, care being taken that the tool does not go over the traced lines, but are worked up neatly to them. The hammer blows both in this and the tracing should be light. Remove from the block, trim off the one-quarter inch margin and clean up.

In the case of trays the edges must now be bent over a block shaped for the purpose by the pupil. Care should be exercised in shaping up these sides from the middle towards the corners from each way. It may be necessary to finish the corners with a file, and a good polishing with emery or powdered pumice stone, and a coat of laequer will complete the model.

The next exercise might be one in raising, which would be a form quite simple in outline. A small bowl will be quite suitable. Having made the drawing, determine the size of the piece of metal required and anneal it well. Describe a circle, and cut out the disk. From the same centre describe other circles of various diameters, one of which will help you to form the base, and the others help in the process of heating up.

Various methods of raising forms are used, the most common perhaps, being the use of various shaped iron anvils. However, a much simpler and perhaps easier method for an amateur is to form a regular depression or concave in the end of a block of wood, and beginning near the outer edge to heat the bowl from the inside around the concentric rings until it assumes somewhat hemispherical shape. So far the shaping has been done by a horn mallet, which the pupil may make for himself. The bowl is then

turned upside down, and the base is formed by heating down the metal just outside the ring which outlines the base using the round end of the hammer over a block. The metal will need annealing occasionally, but the less contact it has with metal anvils or metal hammers the less frequently it will need annealing.

After the desired shape has been obtained the bowl will need trimming up around the edge with a surface gauge, or by placing it on any smooth level surface. The model is then finished with emery as in the case of the former work. Higher forms and those having a compound curve in the side elevation are formed by the use of a snarling iron.

In Repoussé work proper the mode of procedure is the same in the beginning, but after the tracing has been done the metal is turned over on the pitch block or on soft wood, and the space between the traced lines is beaten up from the back by the use of the raising tools described above, a great care being exercised in keeping the surface in regular conformity with the outlines of the design.

Beautiful designs are sometimes worked out by coating the metal with aspholteur, except where the design is to be etched, and this is eaten out by the use of acids in a somewhat stronger solution than is used for "pickle." Small forms, such as spoons, scoops, etc., may be made by beating the metal into a form of lead until the desired shape is obtained. These small forms furnish exercises in sawing, raising, filing and polishing at very small expense for material. In so far as possible rivets should be made by the pupil. The coloring is obtained in a variety of ways. If the object has a good polish the color will grow gradually richer in time. Many beautiful colors are produced by heating or baking, and these may be held by a coat of best colorless lacquer, and should be applied while the metal is hot. Ammonia and sulphur are sometimes used in coloring. Simple stamped borders are frequently made by the use of stamps made from tool steel by the pupils. In the preparation of all designs we must not lose sight of the fact that utility is the first consideration, beauty, design and ornament are secondary.

While work in sheet metal has been spoken of as being taken up by boys only, there is no reason why girls and young women should not engage in it, not only as a training for hand and eye,

but as a healthy and fascinating pastime. Many of the young ladies taking the Domestic Science course at Macdonald Institute spend their spare periods in the work.

It seems to me that this kind of work in our Manual Arts room is the one kind that will so interest the boys and girls that it will be the means of keeping many of them from the streets in that they will take up the work in their own homes, as the equipment required is so simple that there is nothing to prevent its being carried on in any small basement or attic.

*COMMUNAL PROJECTS IN THE PRIMARY GRADES.**

BY MISS F. M. KING.

A child in a normal condition wants to help. He has an inborn desire to do things, and to choose and plan his work, but takes the greatest pleasure in work done in conjunction with others. How different to the child are the commands, "Go and do that," and "Come and help with this."

A good plan for community work in primary grades is the making and furnishing of a house. A large, well-made wooden box serves the purpose best. The rooms should be planned and measured, and the windows and doors outlined and sawed by the children. A definite plan as to the color scheme of the rooms having been decided upon, the paper for the walls, the pictures and carpets, will furnish work for the drawing and painting periods, while the furniture is being prepared during the hour devoted to manual training.

Another interesting project for junior work is the making of villages. A village will form a centre of interest for several weeks, and opportunities for co-relation of subjects are abundant.

In teaching the map of the world to young children, the study of child life in the different countries as portrayed in "Seven Little Sisters," by Jane Andrews, makes the study exceedingly interesting.

After the study of the African child, for instance, in the geography period, the huts of the Africans can be made during the manual training hour. The roofs are easily made from stiff paper and raffia, and the walls from clay, the roof being securely pinned on while the clay is still moist. At another lesson plasticine and clay elephants may be made, and the best selected for the village. This work gives excellent opportunities for oral and written language lessons. When the village is finished it furnishes an interesting subject for painting or drawing.

* Clay huts with thatched roofs of an African village, small teepees and canoes of an Indian village, and small card-board furniture of a Canadian home were used as illustrations of typical communal work. All were made by pupils of a Senior First Class Queen Victoria School, Toronto.

In teaching Canada, the Indians of our Northwest prove an interesting topic of conversation. Parts of the story of "Hiawatha," told and questioned upon have an added interest when followed by the cutting out of wigwams, canoes and bows and arrows.

When a sufficient number of wigwams have been secured to make an Indian village such lines as:

" By the shores of Gitche Gumee,
By the shining Big-Sea-Water,
Stood the wigwam of Nokomis,"

and

" Round about the Indian village
Spread the meadows and the cornfields "

may be illustrated, the children filling in imaginary backgrounds of sky and water, and using the wigwams as models.

A Canadian village gives ample scope for the individuality of the child. A simple house form being taught, the ingenuity of the child is called into play, and modifications of the form produce a number of distinctly different houses.

COMMUNAL PROJECTS IN THE UPPER GRADES.

BY A. J. ROSTANCE.

In asking your attention for a few minutes whilst I place before you some thoughts of mine on co-operation in Manual Training, my only apology is the urgent need for this spirit in our work. I shall not trouble you with any lengthy definition of co-operation; it might be tedious and unnecessary.

Co-operation is a subject almost untouched in educational matters, and as it opens vast fields for investigation and thought, I shall only suggest, and cut my paper considerably shorter than I should, in order that I may listen to a discussion from those who are, I feel sure, better fitted than I to handle this subject.

In the first place I should like to express my conviction that there is no such thing as a thoroughly satisfactory course or system in Manual Training, and that no exponent of Manual Training living to-day is endowed with sufficient genius to dictate the rearing, or to prophesy, the scope, of educational hand-work.

Manual Training at present is most emphatically heterodox. A man who utters opinions even loosely on orthodox matters, is not likely to be misunderstood, but the spokesman of heterodoxy must be exact of the exactest in his statements to obtain a patient hearing, and to prevent misconceptions of his ideas. What champion of this form of education is there who is rash enough to assert it is well understood? The man in the street misunderstands it, the press misunderstands it, the teachers in all grades misunderstand it, and can you and I affirm that in the fullest sense we too do not oftentimes misunderstand it?

The greatest exponent of Manual Training, I reckon, is the man who unselfishly does his best for the work's sake, and the most that the best of us can do is to lay here a stone and there a stone with unslackening effort. There can be no better way for this end than for all sincere educationists of high or low degree to be

* A "Morris" chair, made by a group of boys from the Junior Fourth Class of Lansdowne School, Toronto, was used as an illustration of a "Communal" or "Co-operative" Project.

workers and learners together, co-operators, and to temper their criticisms of each other's work with helpfulness and kindness.

Far be it then from me to urge the adoption of any course of teaching, of any line of conduct, or any scheme, however venerable, or new idea, however inspiring. Only the teacher can separate the wheat from the chaff. He should think and do everything with all his heart, then criticise the results of his efforts unsparingly yet hopefully.

Secondly, concede nothing too freely, but test other people's opinions seven times in the fire to prove whether they be true or not. A false conclusion wrapped up in an elegant sentence, and backed by the world's endorsement, attaches itself insidiously to our minds, and often to our hurt.

The character of the class then, and the personality of the teacher, coupled with his attitude towards the project, should determine to a great extent whether it is suitable or not. I would place particular stress on the individuality and personality of the teacher, for I venture to say that a teacher who has great faith in even the much vaunted sloyd course can produce and turn out far better men, workers and thinkers than he could by a more elastic scheme.

Herr Soloman himself, the great apostle of Manual Training, states that he has more faith in the teacher than he has in any scheme of work.

Here I would like to state that a rigid course of any kind does not appeal to me as ideal, yet with certain conditions and temperaments it is far better than one which allows the boys to grope about in a course which has not the full sympathy of the teacher.

It must be understood that an excellent teacher may be highly skilled in woodwork and mechanical drawing without having a particle of the taste, talent, or feeling requisite for original and artistic construction. With such a one I would like to raise this question: Is it to the best interests of the class that they should be allowed to work original designs? If I could not answer this in the negative I would not raise the question.

From the foregoing remarks I think you will gather that I am not of the opinion that co-operative exercises would be successful in all Manual Training rooms. As I have before said, everything depends on the taste and individuality of each particular instructor.

Perhaps it would be interesting to some of you if I summarized briefly how I became interested in this scheme of co-operative work. After being impressed by the beauty and usefulness of a Morris chair in my friend's house, I made one at home. The simplicity of it struck me, and after a little cogitation I came to the conclusion that there was nothing in it too difficult for an average second year boy. Drawings, and a list of the different parts, ranged in the order of difficulty, were made by myself. About sixteen or eighteen of the best boys were then chosen from the 300 coming to my centre. The most capable boys performed the most difficult pieces. The result, as far as the chair was concerned, was most encouraging and satisfactory. It was an inspiration and education to the rest of the boys who were keenly interested although they had no part in the making of it. It aroused their curiosity, desire, and consciously or unconsciously gave them confidence in themselves. Now, if the boys bring anything with them to the Manual Training School, it is a natural curiosity to know about the things that have been made, and who made them. They examined it with eyes, hands, and mouth and made themselves acquainted with many facts of interest that previously they were ignorant of. Such remarks as these were heard and repeated: "If so and so could do that I could." "Who made this part?" "Here's a poor joint!" "Could our class make one?" This desire and curiosity was nursed carefully. The stimulation of a curiosity that shall continue long after school-days are over is one of the highest objects of education. Let a young man or woman want to know why that is and what this is for, and he has gone a long way towards self-education and improvement. The mind of a scientific expert grows out of the elementary beginnings, and what in him has become the scientific spirit of research and enquiry was in its lowly germ a curiosity, such as we find in the thousands of our boys in the Manual Training School. At this particular time two or three boys brought crude looking wooden pistols into the school. They were all badly made. It occurred to me that there was a similarity of tool operations between the making of the chair and the gun, and that it would be an excellent preliminary to the working of the chair. It also afforded a good opportunity of getting the boys to appreciate the difference between a gun made with a

red hot poker and a knife, and one made with care and method. A drawing was prepared and the boys were expected to copy it. Their attention was drawn to the crude gun, and comparisons were made. Before we commenced the wood-working of this gun, I promised every class the opportunity of making this chair if they could show me in the making of this gun that they were capable. Attention was directed to the fact that the most difficult parts of the chair were actually repeated on that gun; the mortise and tenon particularly. The result was that nine classes out of fifteen gained the honor of making this chair. They had gained their highest ambition in the Manual Training Department at that time. A list of the different parts of the chair was made for each class, and the name of the boy was put opposite to the piece for which he was responsible. A foreman or captain and sub-captain were chosen by the class after a little talk on the kind of captain we should have to overlook our work. In this way it was not difficult for the teacher to work in by suggestion the boy he wished to take charge.

After a general talk on the principles of construction, the use of sliding seat, design and material used, etc., the boys were grouped as far as the model would adapt itself. These groups met separately for demonstration, discussion and mutual improvement. Mutual improvement stands in my estimation next to self-improvement. The time occupied in making the chair extended over a period of six weeks. This, of course, means about six lessons of one hour and twenty minutes each. Part of each lesson was devoted to a short, helpful talk, during which the boys were encouraged to express their opinions, ask questions, trace reasons, and generally to discuss various points of the chair, carefully noting the adaptability of the joints and parts to various other useful models. The trade methods of executing various pieces of the work was shown by sketching on the board. It was pointed out that butternut was not the best wood for furniture. Dozens of such golden opportunities for discussion presented themselves during the making of this chair, which might otherwise have been lost forever. The gluing up and clamping was done by the teacher, assisted by the pupils. This perhaps is a point upon which objection will be raised, yet no one will deny that it afforded an excellent object lesson in gluing, and the use of clamps, and it

would not be unreasonable to suppose that their future efforts would be all the more successful for having seen this done.

The Manual Training room is not the place where co-operation commences; we see it in the kindergarten room. Kindergarten furnishes the very best form of co-operative work in the building of dolls' houses, drills and games, co-operating and helping their teacher and each other in their singing and most of their activities. If then, co-operation has any function of its own, and to accept kindergarten is to admit that it has, then it should continue through the primary grades and Manual Training Department into the life of the community. The principle of continuity forces itself upon us.

Co-operative work must be of little use if we fail to trace its connection with science and industrial life, which is to follow. There is ample and irrefutable evidence that good co-operative training in some form is an excellent preparation, not only for the painter, plumber, and carpenter, but for every grade and type of worker. The want of co-operation and foresight in the industries of to-day is painfully apparent, especially in building.

As one instance, let us take the building of a house. We find plumbers ripping up the carpenters' work, plasterers waiting for the lathers, the painter's sorry plight when perhaps through lack of understanding his colleagues' movements, he finds a beautifully finished room necessitating patching up owing to the introduction of fresh surface to be painted.

I must not be understood to mean that it is the duty of the primary schools to specialize and give the pupil the ability to secure paid work or solve this problem the moment he leaves school; yet no reasonable educationist will deny that within limits there is room for specialization in schools, especially in Canada, where technical and art instruction is so inadequate to the demand. We may divide our classes into three grades or sections:

I. Industrial—those whose education finishes when they leave school.

II. Commercial—those who intend taking up science and special courses at the technical schools.

III. Professional—those who intend going through the university.

And considering 80 per cent. of our boys are in the first section,

a good case could easily be made out for the inclusion of industrial art and hand-work in our Public Schools.

The more industrialism monopolizes the lives of the people, the more should we minister to their practical needs.

The co-operative system of working is a natural sequence to the established methods of our industrial workshops. It follows individuality without sinking it, and consolidates the principle of co-operation. Under its influence the indifferent, careless boys give way to eagerness, and a keen desire to excel. It brings thought and labor together. It makes every worker a thinker and every thinker a worker. The ideal system then is one

“ Where all, as in a work of art,
Is toil, co-operant to the end.”

*MANUAL TRAINING; WHAT IT CAN DO FOR BOYS
AND GIRLS.*

BY S. J. KEYS, B.A.

I must first thank the committee for the honor shown me, in granting me the privilege of addressing this important Section of Manual Arts. It was with much diffidence that I consented to prepare this paper, as it seems an impertinence that I should talk on Manual Training to those who have had far more culture and experience in those arts than I have had. It is a case of pupil trying to teach his teacher, and you know what we do in that case. However, I shall ask you to suspend sentence and punishment while I attempt to tell you briefly what we have learned of Manual Arts or Training in Cornwall.

Cornwall, as you all know, is noted throughout Canada for two things: (1) Its factories, (2) its sports—chiefly lacrosse, and I believe that the latter has given it greater prominence.

A large proportion of our people work in the factories, and the children of our school look forward to entering the factories at an early stage in life. Soon after I became Principal of the school I learned that out of 35 to 40 pupils passing the Entrance Examination each year, only a very few attended the High School, and of these the majority, of the boys especially, only remained a year or two.

Thinking over this state of affairs, I began to question whether the course in our school was the proper one to fit these boys and girls in the best way for the life they would in all probability lead. I could only arrive at the conclusion that it would not. Our teaching and training was all destined to give the children enough knowledge to pass the Entrance Examination, and a great deal of this was useless knowledge as far as after life was concerned. I saw that as these boys and girls were likely to use their hands as well as their minds in their future life, the course required in Cornwall should be one that would develop children both physically and mentally.

About that time teachers began to discuss Manual Training, and centres were established in Ottawa, Brockville, and Toronto, and

from what I learned from those who had attended these centres, and from several able lectures delivered by Inspector Leake, in Cornwall, I was able to convince our board that we should establish a Manual Training Department in connection with our school.

I need not go into particulars as to how this was done, except to say that before long I found myself installed as Manual Training Instructor as well as Principal—quite an undertaking for one who had not received any special training in the work, but where there is a will there is a way, so I began to study and work out a course suitable for our own work. Not having had any special course outlined for me, I was free to experiment and investigate the subject from a wider point of view, than one who has been specially trained.

In thinking over this course, my experience as Model School teacher aided me greatly. The study of Psychology enabled me to understand in what order the faculties of the mind develop, and how best this development can be secured. We are all well aware that our physical faculties develop first, and that out of this development comes our mental faculties. Notice how slowly a child develops—the first six years of its life almost wholly devoted to physical development, with only a slight mental development, and this itself produced through physical aid. We can all remember how we learned to walk, not by some one telling us how we should walk, but by showing us how to try, and then we tried and tried again until we finally learned. What was taking place in the meantime? A slight development of muscle, but, of more importance, a power of mind over muscle, a development of a brain cell, which should hereafter control walking and which soon became an automatic controller. Numerous examples might be quoted to illustrate that Nature's method of teaching is not by *telling* but by *doing*.

These thoughts led me to conclude that any course in Manual Arts or Manual Training to be efficient, must begin with the children entering school, and should continue throughout the whole school life: that it should be a vital part of every day's work; that it is a necessary part of every lesson, because teaching is not filling the mind with knowledge, but developing *power*, and we can only develop power by *doing*. That Manual Training is

an essential part of Nature's method of teaching, and should, therefore, be a necessary part of our school teaching, is very evident.

With this main idea in view, that we consider the *doing* part an essential of every lesson, I shall briefly outline our course of work, and in doing so shall omit the work in drawing, writing, paper folding, etc., which are necessarily Manual Training subjects, and which have often been discussed in this section.

I shall first attempt to show you how we make arithmetic a subject of Manual Training, *i.e.*, how we make the hand aid the eye, and the eye aid the hand, and both develop brain power. In teaching the numbers 1 to 10, by means of blocks, we lead the children to make symmetrical groups, *e.g.*, of 6, and then to construct with this the facts $4 + 2 = 6$, $3 + 3$ are 6, etc. By actually working with the 6, we know that the pupils understand the real 6, and not a fictitious or hazy 6 about which the teacher is talking.

Again, in teaching the tables of weights and measures, no method is equal to that in which the real measures are constructed and used. The greatest difficulty I had in the early lessons in woodwork was to obtain proper measurements. Boys who could glibly repeat the number of inches in a mile, could not measure 2 3-8 inches on a board. In the applications of these tables, in reduction and the four compound rules, we continually test results of the operation by actual measurement. In geography, application of the manual method is made in teaching the definitions of natural features not found in our locality. A model is constructed by the teacher, and then by the pupils, on the sand or clay board. The maps of surrounding section or district are pictured in the same way, a relief map being made in clay. These are very interesting lessons.

In the primary class reading, we make use of a small manual device to test whether the children grasp the thought, when reading the words. A sentence, "the doll is sitting on the floor," is written upon the blackboard, and the children are asked to draw upon their slates what the words say. The child ponders over the words, grasps the meaning and draws a picture of a doll on the floor. Not an artistic picture, but what difference does that make. We have secured a training of mind and hand, *i.e.*, the hand learns to express what is in the mind.

These examples will serve to show that when I speak of Manual Training, I do not do so in the *narrow* sense of teaching boys to make articles in wood, but the *wider* sense, including everything embraced in the term, "Manual or Natural Method of Teaching."

By using this method in the junior classes a good beginning is made for the ordinary work of manual training, cardboard, color, and woodwork.

We begin these as a regular part of the week's work in junior third. The color and cardboard work is taken by the teacher of the room, and the woodwork by myself.

We have been somewhat handicapped in regard to color work, in that none of the teachers on the staff had previously received any training in that branch, and have had to secure private aid. I am glad to say that now we are in a fair way to do the work satisfactorily. In cardboard and wood we follow the course outlined by our worthy inspector, and as extras, those models that appear in "The Canadian Teacher."

Perhaps, Mr. President, you are wondering if I am ever going to reach the subject of my paper. I felt that I should outline first my view and methods of "Manual Work," so that you may see wherein lie the benefits that I shall now enumerate to you.

Let me again repeat that these are the outcome of the "Manual Method of Teaching."

1. The method is natural, and psychological. We learn to do by doing was the old form of the precept, which has now been changed to a better form, we learn to do by knowing and to know by doing, *i.e.*, we learn by guided action.

2. The knowledge obtained by the pupils with this method is practical. It is *real* knowledge, not only groups of words and definitions. A pupil who constructs a lake in the sandboard will certainly see a lake, not a hole in the tay kettle, which was an Irish boy's idea of a lake.

3. It takes into account the natural propensity of children to be *active*, and employs these activities in pleasing educative work, and thus prevents the activities from turning in the direction of mischief. This is a vital matter in securing discipline.

4. It affords opportunity for each individual child to excel in some thing.

You, no doubt, have had in your classes children that simply could not learn spelling or perhaps arithmetic, but in writing, drawing and constructive work could excel. That child will be encouraged to do better work in his poor subject by a little judicious praise on the part of the teacher, when some excellent model in constructive work is made.

5. It gives the children a better opinion of themselves, cultivates independence, and gives them that feeling of pride, which always comes when one does something and does it well. I may say that this applies to the teacher as well as to the pupils. I find children have more respect for a teacher who can *do* as well as *say* or tell how things should be done.

6. This cultivation of pride (in the better sense) is a strong aid in discipline. I have in mind a boy, rather backward in arithmetic and other subjects, and on this account a troublesome boy to discipline, who from the first day he entered the Manual Training room began to change. He showed such an aptitude for the work and finished his first model with such skill and ease, that at the close of a few words of praise, I said: "Well —, a boy who can do work like that can be a good boy, and I expect something from him." I have not been disappointed. I believe I have never seen a prouder boy than he was one day, when he carried home a little table, which he had made for his niece, as a birthday present. There were others proud the same day.

7. I notice an added interest in the ordinary work of the school, in all departments, caused no doubt by the fact that when visitors come to the school the teachers make a specialty of showing the work that has been done by the pupils. A good deal of the work receives ready praise, and a praised pupil is an interested pupil.

8. An added increase in accuracy, neatness, cleanliness, etc.—those things which when lacking mar the good effect of anything we may do. Nothing can secure these like Manual Training.

It has always been claimed that arithmetic is a great trainer in accuracy, but I am convinced that it does not appeal to children as it does to us. The child does not see it, but let him make a box, and be careless in his measurements, and no one needs to tell him the result. The appearance of the box disgusts him, and he throws it away and begins again. Not so with a

question in arithmetic; he patches it up, and goes on. I have observed boys in wood-working make mistakes and try to patch by inserting a piece to fill up. I allowed this to go, and as they near the finish I am not at all surprised to see the boxes thrown away and new ones started. That patch spoils the whole thing.

9. By using the work of the pupils in decorating the halls and rooms of the school, an added pride in the school generally is obtained, and this has a very beneficial result in the care given to the furniture, yards, etc. In our halls we have eight cases, made in Manual Training room, in which we have placed collections of birds, animals, seeds, minerals, curiosities, etc.

10. The Manual Training Instructor can exercise a good influence over the sports of the boys by arranging his models to suit the time of year and the games played, *e.g.*, we desire to have baseball—a baseball bat makes a good model—cricket in the same way, and for an opposite reason I would eliminate the marble board. While working at these models some judicious words can be spoken, which will be remembered on the field, and which will lead to *cleaner* sport.

11. The work in Manual Training will cultivate *patience*, to a greater extent than any other subject—especially in the instructor. In no subject is required such careful dealing with the pupils to encourage them and to see some good in every effort, no matter how faulty it may be.

12. The mental faculties of the classes are developed in imagination, reason and judgment: imagination in designing some original model or deviating from a given type; reason in deciding just what to do, and whether that will reach the desired end, and judgment in the working out of the idea.

Lastly, Mr. President, I believe it will afford a means of keeping boys and girls in the Public Schools for a longer time. In many cases they now graduate to a High School at the age of twelve years—an altogether immature age—except in special cases. I should like to see every child remain in the Public Schools until fifteen years of age. This would give the pupils the age to understand the higher work, and the physical development necessary to support the mental work.

I think I have now given sufficient examples of the beneficial effects of "Manual Training" to convince anyone that it is a

necessary part of every school and should be generally introduced into all schools—rural schools as well as urban. I see nothing to hinder every branch of the Manual Training being undertaken in rural schools; in fact, in some countries, everything except woodwork is taken, and I believe that room could be found in a corner of the schoolroom for one or two benches with a small assortment of tools.

You may answer that this could easily be done, were all our teachers of the male sex, but the ladies could not very well instruct pupils in the use of planes, saws, etc.

You, no doubt, have noticed that I tried to include both boys and girls in all the work outlined in this paper, and when I said boys only, I did so for the sake of brevity. Girls can do the work just as well as boys, and should be trained in the same way. I have yet to learn that there is any *sex* to *mind*, and while I am not so far advanced that I will advocate that girls should be taught the woodwork to the same extent as boys, yet there is no physical reason that it cannot be done. I have tried classes of girls from the Model students, and they work equally as well as the boys.

I had, one year, a class of my lady teachers, and I was very much pleased with the work. A part of the work done was not along the ordinary lines of work, but rather with a view of usefulness, in the way of bookcases, writing desks, shirtwaist boxes, etc., which were afterwards decorated by pyrography or burnt work, and were so satisfactorily done that I had them photographed, and shall pass them around, and let you see for yourself what Cornwall young ladies can do.

I am afraid, Mr. President, that I have wandered widely, and have said little of value to your Section. My intention was to widen our view of "Manual Training," and to impress the idea that any school, in order to do good, practical work, must do it by the "Manual Method," *i.e.*, must at the same time train the muscles and the mind.

Only by this co-development can we secure what this country needs, strong, active, fully developed women and men, who can do something, and who have the desire and initiative power to do.

IN MEMORIAM.

JOHN MILLAR, B.A. .

Mr. John Millar was born in Ireland in 1842. When only a few months old he came to Canada with his parents, who settled in the township of Brock, county of Ontario. He received his elementary education in one of the Public Schools of that township. When seventeen years of age, he began to teach in one of the rural schools there. He attended the Provincial Normal School, Toronto, in the year 1862, and was awarded a First Class A Certificate. During the next two years he taught in the township of Barton, county of Wentworth, and during the next five years in the city of London.

While teaching in London, Mr. Millar became an extra-mural student of Toronto University, and after a brief attendance there, was graduated B.A. in 1872.

His experience in High School work was gained in St. Thomas, first as an assistant, and subsequently, by promotion, as Principal. Under his management, the High School was, in a few years, raised to the status of a Collegiate Institute. While Principal of the Collegiate Institute, he was also Principal of the Public Schools of St. Thomas.

Mr. Millar took a deep interest in educational affairs, and was a constant attendant at the meetings of the Ontario Educational Association. He was chairman of the High School Section for two years, and for four years, 1884-1888, was a member of the Senate of the University of Toronto, being twice elected to represent the High School teachers in that body.

In May, 1890, he was appointed by the Provincial Government to the important position of Deputy Minister of Education, which position he filled till his lamented death in 1905.

While teaching in St. Thomas, Mr. Millar annotated several editions of the English classics. While Deputy Minister of Education he continued his literary work. The following are some of his many publications: "The Education System of the Province

of Ontario," "School Management," "Books—A Guide to Good Reading," "The School System of the State of New York," "Canadian Citizenship," etc.

The following resolution was adopted by the Board of Directors of the Ontario Educational Association, and transmitted to Mrs. Millar and her family:

"The Board of Directors of the Ontario Educational Association, on behalf of that body, desires to extend to you, Mrs. Millar and family, its deepest sympathy for the irreparable loss you have sustained in the lamented death of your late husband and father. The committee desires also to say that the cause of education in this province has lost an earnest and zealous supporter, and the teaching profession one of its ablest and most faithful friends.

"The late Mr. Miller was a man of versatile attainments, as shown by the works with which he has enriched the literature of education. His clear judgment made him peculiarly wise in counsel; his courteous manners disarmed many a would-be opponent; and his unfailing kindness and untiring patience endeared him to all with whom he came into contact, either in his public or private life. The secret of his influence lay in the moral earnestness and heart power of the truly Christian gentleman, and the passing of such a man is indeed a loss to his friends, a loss to the teachers of Ontario, and a loss to the cause of education."

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